THE RURAL ECONOMY OF YORKSHIRE.

COMPRIZING THE

Management of Landed Eſtates,

AND THE

PRESENT PRACTICE of HUSBANDRY

IN THE

AGRICULTURAL DISTRICTS OF THAT COUNTY.

By Mr. MARSHALL.

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THE

RURAL ECONOMY

OF

YORKSHIRE.

I.

WHEAT.

IN NORFOLK, a CORN country, whoſe huſbandry may be taken as a ſtandard for other LIGHT-LAND DISTRICTS, I ſtudied the various proceſſes of each ARABLE CROP with attention; and have endeavoured to deſcribe them with minuteneſs. But to purſue a ſimilar conduct in a country where GRASSLAND prevails; where corn is of courſe only a *ſecondary* object; and where, through the diverſity of ſoils, and the preſent ſtate of

incloſure, no regular management of arable crops ſufficiently excellent to be held out as a pattern is eſtabliſhed,—would be an impropriety. Nevertheleſs, in a country where improvement ſtands on tiptoe, eager to diſcover and bring into practice every thing which wears the aſpect of ſuperior utility, it would be ſtill more improper to paſs over the INDIVIDUALS of the ARABLE CROPS without notice.

Their GENERAL MANAGEMENT has been already deſcribed under the foregoing general heads. What remains to be done with reſpect to EACH CROP is to regiſter ſuch PARTICULARS as I judge may be of ſervice in the advancement of the plan under execution.

The particulars which ſtrike me as being noticeable, under the preſent head, are,

1. The ſpecies of wheat prevalent here;
2. The raiſing of new varieties;
3. Preparing the ſeed to prevent ſmut;
4. An opinion reſpecting mildew.

I. THE SPECIES of wheat cultivated at preſent in the Diſtrict are,

1. TRITICUM *Hybernum*; WINTER WHEAT: of which there are the following VARIETIES:

1. "*Zealand*

1. "*Zealand Wheat:*" chaff white, without awns*; ears ſomewhat large; grain white and full-bodied; ſtraw long and reedy. This ſort is well adapted to weak and to middling ſoiled land. In a rich ſoil, eſpecially in a moiſt ſeaſon, it runs too much to ſtraw.

2. "*Downy Kent:*" chaff white, downy, and awnleſs; ears middle-ſized; grain white and ſmall; ſtraw ſhort. This kind is beſt adapted to good land; in which it generally yields well, notwithſtanding the ſmallneſs of the grains.

3. *Common White Wheat.* The two preceding ſorts ſeem to have almoſt baniſhed the "old white wheat" of the Diſtrict—the *white Lammas* of other diſtricts.

4. *Hertfordſhire Brown.* Chaff *white*,—grain *red*,—ſtraw of a middle growth: reſembling the *Kentiſh white Coſh* of Norfolk.

5. "*Yellow Kent.*" Chaff ſomewhat *red*; grain *white!* ears large; ſtraw ſtout.

6. *Common Red Wheat.* This, like the old white, appears to be now nearly extinct.

* All the varieties of *Triticum Hybernum* which I have yet obſerved have *a few ſhort awns* towards the top of the ear.

2. TRITICUM *Æstivum*; SUMMER WHEAT; —generally known by the name of SPRING WHEAT.

In the Whitby quarter of the *Morelands* this ſpecies of wheat has been cultivated many years. It was introduced into the *Vale* a few years ago; but it does not ſeem to gain an eſtabliſhment here. It has, however, been ſufficiently tried to aſcertain *the proper month of ſowing:* namely, *April.*

II. RAISING VARIETIES. It is probable that time has the ſame effect upon the varieties of wheat and other grains as it has on thoſe of cultivated fruits, potatoes, and other vegetable productions.

In every country I find new varieties of corn gaining footing, and old ones giving place to them. Faſhion may influence a few individuals to *introduce* a new variety; but it is not likely that faſhion alone ſhould induce a body of profeſſional huſbandmen to *diſcard* an old one.

In GARDENING, varieties are endleſs; and freſh ones are annually making: not perhaps ſo much by accident as by induſtry. Thus to produce an early PEA, the gardener marks

the

the plants which open firſt into bloſſom, among the moſt early kind he has in cultivation. Next year he ſows the produce of theſe plants, and goes over the coming crop in the manner he had done the preceding year, marking the earlieſt of this earlier kind. In a ſimilar manner new varieties of APPLES are raiſed, by chooſing the broadeſt-leaved plants among a bed of ſeedlings riſing promiſcuouſly from pippins.

HUSBANDMEN, it is probable, have heretofore been equally induſtrious in producing freſh varieties of CORN; or whence the endleſs variety of WINTER WHEATS? If they be naturally of one and the ſame ſpecies, as Linneus has deemed them, they muſt have been produced by climature, ſoil, or induſtry; for although nature ſometimes ſports with individuals, the induſtry of man is requiſite to raiſe, eſtabliſh, and continue a PERMANENT VARIETY.

Of late, the raiſing of varieties has perhaps been little attended to. Transferring thoſe already eſtabliſhed from one part of the kingdom, or from one part of the world, to another, has alone perhaps produced the re-

cent changes in the ſeveral Diſtricts. The only inſtance in which I have had an opportunity of tracing the *variety* down to the *parent individual*, has occurred to me in this Diſtrict.

A man whoſe obſervation is ever on the wing in the field of huſbandry, having perceived in a piece of wheat a plant of uncommon ſtrength and luxuriance, diffuſing its branches on every ſide, and ſetting its cloſely ſurrounding neighbours at defiance; marked it, and at harveſt removed it ſeparately.

The produce was fifteen ears, yielding ſix hundred and four grains of a ſtrong-bodied liver-coloured wheat, different in general appearance from every other variety I have ſeen. The chaff ſmooth, awnleſs, and the colour of the grain. The ſtraw ſtout and reedy.

Theſe ſix hundred grains were planted ſingly nine inches aſunder, filling about forty ſquare yards of ground; not in a garden, or in a ſeparate piece of ground, but upon a clover ſtubble; the remainder of which was at the ſame time ſown with other wheat in the common way: by which means *extraordinary*

ordinary trouble and *deſtruction by birds* were equally avoided.

The produce of theſe forty yards was two and a half gallons, weighing twenty pounds and a half, of prime grain fit for ſeed, beſides ſome pounds of ſeconds. One grain produced thirty-five ears, yielding twelve hundred and thirty-five grains.

The ſecond year's produce being ſufficient to plant an acre of ground, the variety was of courſe ſufficiently eſtabliſhed.

This, the fifth year, I have ſeen it grow in quantity; but the ſeaſon being moiſt, and the ſoil good, it was moſt of it lodged. The crop upon the ground is abundant: ſeventy full ſhocks an acre. But the produce of Zealand wheat in the ſame piece is equal to it; and, on examination, I think the grain of this is better, its ſkin is ſomewhat thinner. Nevertheleſs, the variety under notice may rank with the firſt of the preſent day. For an inferior ſoil it may perhaps be found ſuperiorly eligible *,

* It is obſervable, that the quality of this variety *improves*. Its colour and ſkin this year, notwithſtanding the unfavourableneſs of the ſeaſon, are finer than they were the laſt and the preceding years.

Its intrinsic value, however, would not have been a sufficient inducement for describing the circumstances of its rise, had not these circumstances pointed out at the same time the *practicability*, as well as an *easy and speedy method of raising new varieties*, and of *improving* those which are already known.

What deters *Farmers* from improvements of this nature, is principally the mischievousness of BIRDS; from which at harvest it is scarcely possible to preserve a small patch of corn, especially in a *garden* or other ground situated near a *habitation*. But by carrying on the improvement in a *field of corn of the same nature*, that inconveniency is got rid of.

In this situation, however, the *botanist* will be apprehensive of danger from the floral farina of the surrounding crop. But, from what observation I have made, I am of opinion his fears will prove groundless. No evil effect of this nature occurred in the instance above recited, although the cultivation has been carried on among *white* wheat. But this need not be brought as an evidence: it is not uncommon here to sow a mixture of *red* and *white* wheats together, and this, it is

con-

confidently aſſerted, without impairing even the *colour* of either of them.

The ſame mode of culture is applicable to the IMPROVEMENT OF VARIETIES; which perhaps would be more profitable to the huſbandman than raiſing new ones, and much more expeditious.

Formerly, it was the practice in the improvement of cattle to *croſs* with other breeds; but modern breeders, who have brought the art to a high degree of perfection, purſue a different method: they pick out the faireſt of the particular breed or variety they want to improve, and proſecute the improvement with theſe *ſelected individuals*.

In every field of corn, let the variety be ever ſo pure and ever ſo well adapted to the ſoil and ſituation, the ſame inequality in the beauty and goodneſs of individuals is obſervable, as in a herd of cattle; and it is the buſineſs of the corn-farmer to avail himſelf of ſo ſuitable an opportunity of improvement, *by ſelecting ſuch individual plants as excel in vigour and productiveneſs*, under a moral certainty that ſuch individuals are peculiarly adapted to *his* ſoil and ſituation.

III. PRE-

III. PREPARING SEED-WHEAT. In the Rural Economy of NORFOLK I have mentioned an improvement in the uſe of ſalt and lime as preventives againſt ſmut. Here a ſingular remedy is made uſe of for that purpoſe; ſingular I mean as to this Diſtrict, in which alone I have found ARSENIC uſed as a preventive of that troubleſome diſeaſe.

Formerly, brine and lime were the uſual preparation here, as they ſtill are in almoſt every Diſtrict of the Iſland. How long arſenic has been in uſe here, or how the uſe of it was introduced, I have not learnt with ſufficient accuracy. One perſon (whoſe accuracy might be ſafely relied on, were not his evidence corroborated by my own occaſional obſervation) has uſed it more than twenty years, invariably, and with uniform ſucceſs. He cannot ſay that during that time he has not had a ſmutty ear of wheat upon his farm; but he aſſerts with confidence, that ſince he prepared ſeed-wheat with arſenic-water, he has not experienced a ſenſible injury from ſmut. The ſame or a ſimilar ſtrength of evidence might probably be obtained from an hundred individuals in this neighbourhood.

Its

Its EFFICACY is not, I believe, doubted by any one who has given it a fair trial; but there are ſome who, through apprehenſions of *danger* from the careleſsneſs of ſervants, or from their own abſentneſs, or under an idea that an arſenical preparation is hurtful to the ſeedſman, are ſcrupulous about uſing it.

Whether the *faſt* has or has not any foundation in truth is at preſent a matter in diſpute. The perſon abovementioned has not, during his twenty years practice, experienced any inconveniency either to himſelf, his ſervants, or his live ſtock; not even to his poultry. Nor have I heard of a ſingle accident having ariſen from the uſe of it in any part of the Diſtrict.

I do not mean to comment upon this practice: ſuffice it for me to regiſter ſuch facts as have occurred to me reſpecting it, and to give the proceſs; leaving the reader to form his own judgment in regard to the propriety of uſing it.

This preparation is made by pounding the arſenic extremely fine, boiling it in water, diluting the decoction, and drenching the ſeed effectually in the liquor.

In

In ſtrictneſs, the arſenic ſhould be levigated ſufficiently fine to be taken up and *waſhed over* with water, reducing the ſediment until it be fine enough to be carried over in the ſame manner.

The uſual method of preparing the liquor is to boil one ounce of *white* arſenic finely powdered in a gallon of water from one to two hours, and to add to the decoction as much water or ſtale urine as will increaſe the quantity of liquor to two gallons,

In this liquor the ſeed is, or ought to be, *immerged*, ſtirring it about in ſuch manner as to *ſaturate* effectually the *downy end* of each grain.

This done, and the liquor drawn off, the ſeed is conſidered as fit for the ſeed-baſket, without being candied with lime, or any other preparation.

If, however, any danger ariſe to the ſeedſman from ſowing ſeed thus prepared, it probably ariſes from the ſuperfluous moiſture of the ſeed in this ſtate entering the pores of his hand. Candying the ſeed with lime would not only abſorb the redundant liquor, but would render the ſeed more pleaſant to the

hand

hand in ſowing, and more diſtinguiſhable by the eye when caſt upon the ground.

A buſhel of wheat has been obſerved to take up about a gallon of liquor. The price of arſenic is about ſixpence a pound; which, on this calculation, will cure four quarters of ſeed. If no more than three quarters be prepared with it, the coſt will be only a farthing a buſhel; but to this muſt be added the labour of pounding and boiling. Nevertheleſs it is by much the cheapeſt, and perhaps upon the whole the beſt, preparation we are at preſent acquainted with.

When, however, I ſay the *beſt preparation*, I mean only to ſpeak the language of profeſſional men, not only in this, but in every other Diſtrict. My own practice has not furniſhed me with a ſufficient *proof* that *any preparation* is neceſſary. I therefore ſuſpend my judgment at preſent, upon this diſputable but intereſting ſubject of huſbandry. Nevertheleſs, I wiſh to have it underſtood that I am not *at preſent* an enemy to preparations.

IV. The Mildew of Wheat. It is a received idea in this Diſtrict, that meslin,—provincially, "masſhelſon,"—(a mixture of wheat

wheat and rye, formerly a very common crop in this neighbourhood, and ſtill remains to be ſo in the Morelands) is never affected by the blight or mildew,—provincially and properly, "meldew:"—and that the nature of *rye* is ſuch, that a very ſmall quantity of it ſown among *wheat* prevents this frequently deſtructive effect.

This, *if well-founded*, is a moſt intereſting fact; not only in HUSBANDRY, but in the VEGETABLE ECONOMY.

2.

RYE.

THE ONLY SPECIES of rye cultivated in theſe kingdoms is the SECALE *cereale* of Linnæus; of which two varieties are cultivated in this Diſtrict.

1. BLACK RYE; formerly the only ſort.

2. WHITE RYE, or DANTZICK RYE; introduced into this country about half a century

tury ago, and is now the almoſt only ſort which is cultivated.

Before the uſe of LIME was prevalent, much rye was grown on the lighter lands upon the margin of the Vale; and in the Morelands ſcarcely any other crops than rye and oats were attempted. Now, rye is principally confined to the Moreland-dales; and even there the *alteration of ſoils by lime* has been ſuch, that wheat is become the more prevalent crop.

Nevertheleſs, on light ſandy Moreland ſoils rye is generally more profitable than wheat; and the bread which is made from a mixture of the two grains, is here eſteemed more wholeſome to perſons in general, than that which is made from wheat alone.

BARLEY.

3.

BARLEY.

THERE ARE FOUR kinds of barley; all of them distinct SPECIES, cultivated more or less in this District.

Common barley, — *hordeum zeocriton*, — long-eared barley.

Battledoor barley, — *hordeum distichon*, — sprat barley.

Big ————, *hordeum* ———, four-rowed barley, or spring barley.

————*hordeum hexastichon*,—six-rowed barley, or winter barley.

The first and the third are the sorts which are now principally cultivated. The first, in the Vale; the third, in the Morelands, or in the Vale, when the season of sowing is driven very late. Formerly, "BATTLEDOOR BARLEY" was a common crop; but at present it is almost out of cultivation. The WINTER

BARLEY

BARLEY is new to the Diſtrict; and it does not ſeem to be yet generally underſtood that it ought to be *ſown in autumn.*

In the open field ſtate barley was grown in the "wheat field," alternately with wheat.

One circumſtance reſpecting the ancient huſbandry of this crop deſerves to be regiſtered; as it ſerves to ſhew the alteration which time has the power of making, even in the buſineſs of huſbandmen.

Leſs than a century ago, I believe, barley was not ſaleable until it was MALTED. Public malt-houſes, and the buſineſs of a maltſter, were equally unknown: *every farmer malted his own barley*, or ſold it to a neighbour who had a MALT KILN; an out-office neceſſary in thoſe days to every conſiderable farm.

The fuel uſed on this occaſion was chiefly brakes, cut off the neighbouring commons: a certain day of cutting being fixt, to prevent any man from monopolizing more than his ſhare.

When malted, it was ſaleable; and the ſurplus of the conſumption of the neighbourhood found a market at Whitby, Scarborough, and other towns of the Diſtrict.

Now, even *public malt-houses* are unknown; the entire buſineſs of malting being in the hands of profeſſional MALTSTERS; who buy the barley of the farmer, and ſell him the malt which he may want for his own private uſe.

4.

OATS.

LINNEUS includes the whole tribe of cultivated oats in the ſpecies AVENA *ſativa*.

The VARIETIES formerly cultivated in this Diſtrict were the "SLOW OAT" and the "HASTY OAT;" both of them conſidered as of Scotch extraction.

At preſent the ſorts principally in uſe are,

1. "POLAND OATS:" a ſhort, plump grain; but the thickneſs of its ſkin ſeems to have brought it into diſrepute among attentive farmers. Moſtly ſingle; no awn; ſtraw ſhort.

2. FRIEZLAND

2. "FRIEZLAND OATS." Theſe appear to be at preſent the favourite oat of the country; and with good reaſon: they afford more ſtraw, and are thinner-ſkinned than the Poland oat. Moſtly double; the larger ſometimes awned; the awn placed high.

3. "SIBERIAN OATS,"—more generally known by the name of TARTARIAN OATS. This is evidently a diſtinct SPECIES, unnoticed by Linneus. Each flower frequently contains three perfect florets; never leſs than two, and a pedeſtalled rudiment. Sometimes three perfect grains and a rudiment. The panicle, too, varies eſſentially from all the varieties of AVENA *ſativa*. AVENA *arundinacea* would be a proper term for it. The grains of this ſpecies are thin and ſmall; the largeſt awned; the ſmall ones awnleſs; the ſtraw tall and reedy.

The REED OAT may be ſaid to be here fairly in the hands of huſbandmen; a circumſtance which I have not obſerved elſewhere. But it does not ſeem to be in ſufficient eſtimation to gain an eſtabliſhed footing in the Diſtrict. The grain is light, and the *ſtraw* too much like *reed*, to be affected by cattle.

The particulars which are noticeable in the cultivation of oats in the Vale are,

1. The ſoil.
2. The quantity of ſeed.
3. The produce.
4. A ſingular mode of thraſhing.

I. SOIL. The rich lands in the weſtern diviſion of the Vale are peculiarly affected by oats. There have been inſtances of ſowing them ſix or ſeven years ſucceſſively on the ſame land. This, however, has been where the land has previouſly lain long in graſs. The ſoil principally a rich ſandy loam; a ſoil ſingularly productive of OATS; but not of *wheat:* which in theſe ſoils runs too much to ſtraw.

It is therefore highly judicious in the occupiers of them not to attempt wheat. Oats will generally pay much better on ſuch ſoils.

II. QUANTITY OF SEED. Five or ſix buſhels, and even a quarter of oats, an acre, are here ſometimes ſown! On ſome ſoils it is found, that the more ſeed, the greater in proportion is the produce. A prudent man, however, ought, in my opinion, to aſcertain, by comparative experiments, *the extent of his*

ſoil

foil before he ſow, on a large ſcale, more than ſix buſhels of oats an acre.

III. PRODUCE. Ten quarters of oats an acre have been grown on a piece of many acres. Seven or eight quarters an acre throughout a large farm has not unfrequently been produced. One Vale farmer, laſt year, ſold and ſent to market a thouſand quarters of oats.

IV. THRASHING. A moſt *eccentric* practice has of late years taken place with reſpect to the thraſhing of oats: not in barns, or under cover, as heretofore, and as the operation is ſtill carried on in every other part of the Iſland; but in the field, or the ſtack-yard, IN THE OPEN AIR!

This new method of thraſhing oats probably took its riſe from the ordinary one of thraſhing rape in this Diſtrict (a proceſs which will be explained by and by); the oats, at the outſet, being all thraſhed on *cloths*. But, now, I find it is common to thraſh them on a piece of plain *ſward* or other level ground *without a cloth!* it having been found, from experience, that if pigs and poultry be employed to pick up the few which the

broom leaves, the waſte is little or nothing.

What may ſeem equally ſtrange, this buſineſs is frequently done at harveſt; the oats being carried immediately from the field, in which they grew, to market!

This, however, is leſs extraordinary when we are acquainted with the market, which is always open for new oats in this country. The manufacturing parts of Weſt Yorkſhire uſe principally oaten bread; and new oats are coveted for oatmeal. This accounts for their high price at harveſt, here, compared with that which they bear in other places; and this was probably the inducement which led to the ſingular expedient under notice.

The conveniency of thraſhing them in the *field* being by this means diſcovered, the practice was eaſily transferred from the field to the *ſtack-yard*.

In one inſtance, to which I more particularly attended, the operation was thus conducted. A cloth was ſpread upon the ground (firſt made ſmooth) by the ſide of the ſtack of oats (in a ſtack-yard). A boy threw the ſheaves off the ſtack on to the cloth. One

man

man opened and ſpread the ſheaves; turned them when requiſite, and threw off the ſtraw when ſufficiently thraſhed. Four men kept continually thraſhing.

In another, the oats were carried from the field to a graſs incloſure, and ſtacked in a place convenient for the expenditure of the ſtraw. In this caſe the floor was a circle of cloſe-paſtured greenſward; about ten yards dianieter; the opened ſheaves being ſpread in a ring with their heads toward the center; eight or ten thraſhers treading this ring with a ſlow pace. One ſide ſufficiently thraſhed, the other was turned uppermoſt, and the ſtraw at length ſhook off the circle. Women were employed at the floor, while two men ſtacked the ſtraw as it was thrown off; and while others were employed on the oppoſite ſide of the ring, in winnowing the oats with a machine-fan.

In a third, the oats were carried immediately out of the harveſt-field to the thraſhing-floor, without a previous ſtacking. In this caſe alſo the floor was a ring of greenſward;—beaten firm and ſmooth with flails before any corn was laid upon it. The waſte

is nothing compared with the expence of a cloth.

The ſtraw was in every caſe ſtacked looſe; to be cut out as hay: the common practice, I underſtand, when oats are thraſhed abroad.

When the ſtraw is thus freed from the corn at harveſt, and is ſtacked in good order, it takes a heat in ſtack, and is ſaid to make excellent fodder. Cattle will ſometimes get forward in fleſh upon ſuch ſtraw alone.

But this happens in the rich-land quarter mentioned above. And, query, has not *a rich ſoil* a ſimilar effect upon the *ſtraw*, as it has upon the *hay*, which is grown upon it? The hay of Lincolnſhire will fat large bullocks, which that of Norfolk would barely ſupport.

The ADVANTAGES held out in favour of this method of thraſhing oats, are thoſe of diſpatch and the ſaving of barn room; or the ſaving of carriage. A perſon who had a large quantity of oats upon an off-farm, ſome miles from his place of reſidence, without a barn upon it, gave a ſhilling a quarter for thraſhing, *at harveſt*; a buſy time. Had not this expedient been practiſed, a barn

muſt

muſt have been built, or an impracticable quantity of carriage would have been requiſite.

The chance of bad weather ſeems to be the only *objection* to this practice. But there is always plenty of ſtraw to cover up the CORN with; and it is found by experience, that a little rain upon the STRAW does not make it leſs affected by cattle.

In ſome caſes the practice is, beyond diſpute, highly eligible in this country; and might, I have not a doubt, be profitably extended to many other Diſtricts of the Iſland.

PULSE.

5.

PULSE.

NOTHING particularly noticeable has occurred to me in this District respecting any of the species of cultivated pulse; excepting that it is a pretty common practice to sow beans and peas (grey peas) together, under the name of "BLENDINGS." Sometimes "FITCHES" (probably a gigantic variety of the ERVUM *lens*) are sown among beans. These mixtures are found to increase the crop; and the component species are readily separable with the sieve.

Formerly "LENTILS," the true ERVUM *lens*, were a common crop in this neighbourhood; but at present they are growing, if not already grown, into disuse.

TURNEPS.

6.

TURNEPS.

TWENTY YEARS ago the turnep crop was a ſtranger in this Diſtrict. Even yet it is far from being an eſtabliſhed crop.

Nevertheleſs, there are ſome men whom the ſpirit of improvement has ſtimulated to the turnep-culture; and who may rank among the beſt turnep farmers in the kingdom; thoſe of Norfolk excepted.

It muſt not however be expected that, after the ample detail I have given of the NORFOLK PRACTICE, much *new* matter can be collected from the practice of this Diſtrict. I have met with only one particular which merits notice; and which, though a ſimple and eligible piece of management, I do not recollect to have met with in Norfolk.

In the inſtance of practice under notice, the *largeſt* of the turneps are *drawn and carried*

ried off for fatting cattle; and the *ſmall* ones *eaten upon the ground* with ſheep; eſpecially with ewes and lambs in the ſpring.

This practice eaſes very much the labour of drawing, tailing, &c.—and gives the ſmall turneps room to grow, in the early part of winter; and to ſhoot freely in the ſpring.

If the ſmall ones be eaten off *in winter*, the ſoil is rendered free for the plow, as if the whole had been drawn and carried off. And in this particular only, reſts the ſuperiority of the Yorkſhire practice: one inſtance of practice in Norfolk having been noticed, in which the large ones were drawn, and the ſmall ones ſuffered to ſtand *until ſpring*. See NORF. ECON. Vol. I. p. 287.

RAPE.

7.

RAPE.

THIS is the only Diſtrict in which I have met with rape (BRASSICA *napus*—Coleſeed) cultivated for its SEED.

It has long been the practice of the Vale; where large quantities have been annually cultivated; and where the cultivation of it is, I believe, equal at leaſt to that of any other Diſtrict.

It therefore merits a full and minute deſcription in this place.

The requiſite diviſions of the ſubject are,

1. Succeſſion.
2. Soil and proceſs.
3. Manure and proceſs.
4. Seed-proceſs.
5. Vegetating-proceſs.
6. Harveſt-management.
7. Market.

I. SUCCESSION.

I. SUCCESSION. Rape is generally ſown on *ſward*. In the richer parts of the Vale it is ſometimes ſown on *fallow*, like turneps; and ſometimes it is ventured upon the *ſtubble* of an arable crop; but, unleſs the ſoil be clean and rich, ſeldom with ſucceſs. On MAIDEN SWARD, as that of commons, or old grazing grounds, it in general turns out a very profitable crop.

II. SOIL AND PROCESS. Various as are the SOILS of this Diſtrict, it is ſown on *every ſpecies*; and generally with a ſucceſs proportioned to its *richneſs*; the *ſpecific quality* of the ſoil being conſidered as immaterial; provided it has lain long in SWARD; and provided the ſward be reduced, and the ſoil ameliorated, by PARING AND BURNING. See the Article SOD-BURNING.

III. MANURE AND PROCESS. The aſhes of the ſward, with generally a ſprinkling of *lime*, are the univerſal and only manure for rape on ſward. The aſhes, I believe, are principally depended upon for the rape; the lime being rather intended for ſucceeding crops.

IV. SEED-

IV. SEED-PROCESS. The *time of ſowing*, July: early enough to get a ſtrong *leaf*, and late enough to prevent its running up to *ſtem*, the firſt autumn. *Quantity of ſeed*, one gallon an acre; ſown generally on the rough plit of one plowing (ſee SOD-BURNING); the ſeed being bruſhed in with a thorn-harrow.

Sometimes the tops of the plits are ſcratched with a pair of tined harrows before the ſeed be ſown; and ſometimes they are neither harrowed before, nor ſwept after the ſowing!

V. VEGETATING-PROCESS. I have heard of an inſtance or two of rape being *hoed* with five or ſix-inch hoes. But that is not the practice of the country. Neither hoing, nor weeding of any kind, is, I believe, ſcarcely ever beſtowed on the rape crop.

One practice, however, in this ſtage of the general proceſs of rape deſerves notice. The practice here meant is that of "TRANSPLANTING:" namely, filling the vacant patches (with which rape too frequently abounds) with plants drawn from the parts which are overſtocked.

This

This work is generally done by women, who put in the plants with dibbles.

Plants thus removed ſeldom fail to take root; but they ripen ſomewhat later than the unmoved plants. Nevertheleſs, the practice is highly eligible.

The time of tranſplanting, October.

If the whole, or a principal part of a land, or a large patch,—happen to miſs,—the PLOW is ſometimes uſed in tranſplanting.

In this caſe the plants are laid, or placed in a leaning poſture, by women, in every ſecond furrow, about a foot apart in the furrows. The roots are of courſe covered with the next plit; and a ſecond plit being added, another row of plants are laid againſt it. The diſtance, therefore, is about eighteen or twenty inches by twelve, which, upon good land, is found to be ſufficiently near.

The expence of tranſplanting rape in this manner has been found, on accurate obſervation, to be about four ſhillings an acre: namely, eight women, at ſixpence a day each.

This

This expedient leads to an operation which would, in my opinion, be a valuable IMPROVEMENT IN THE CULTURE OF RAPE.

The great objection to this crop, and that which deters many judicious men from cultivating it, is the length of time it occupies the ſoil. Being ſown in July or Auguſt, the whole tribe of biennial weeds have time to eſtabliſh themſelves before winter; and not being reaped until July or Auguſt following, they have time to mature and ſhed their ſeed.

The graſſes, and ſtrong-rooted weeds of every kind, likewiſe gain in that time a degree of poſſeſſion which is difficult to be ſet aſide. The ſoil, too, gets out of tilth, by lying ſo long a time without plowing.

ONE PLOWING IN AUTUMN would remove, or greatly alleviate, thoſe evils. The biennials would thereby be extirpated; the graſſes and ſtrong-rooted weeds be checked; and the ſoil be preſerved in tillage.

The operation which ſtrikes me as being ſingularly eligible to be adopted is that of TRANSPLANTING THE WHOLE CROP.

The *method* I ſhould propoſe is this: draw from the *firſt land* a ſufficiency of plants to plant the *laſt land* with, and bury their roots in a vacant ground until wanted.

Plow the firſt land; burying the weeds and the refuſe rape; and ſtock it at the ſame time with plants, drawn from the ſecond land, in the manner above deſcribed.

The firſt land finiſhed, ſupply the ſecond with plants from the third, and ſo on till the whole be finiſhed, planting the laſt land with the plants in reſerve.

Beſides the ADVANTAGES already ſet forth, the entire piece would by this means be furniſhed with *prime plants*; *equal in ſtrength*; and *regular in diſtance*. Hence the ſoil would not only be *evenly* occupied; but the crop would *ripen equally*. The large and uniform diſtance of the plants, too, would give free admiſſion to the *hoe*:—even a narrow *horſe-hoe* might be uſed between the rows.

Thus, the fouleſt crop which farmers have to deal with, might, for a ſmall expence, be rendered a FALLOW CROP *of the firſt eſtimation.*

If ſod-burnt land were managed in this manner, the firſt or ſeed-plowing ought to be very

very ſhallow, acroſs the ridges (if any); and the ſecond, or tranſplanting plowing, long-way of the lands, acroſs the firſt plowing; gathering up the ridges dry againſt winter.

A manured fallow, a rich wheat ſtubble, or other land ſufficiently clean, and in ſufficient heart for rape, might be planted with it in a ſimilar manner; raiſing plants for this purpoſe in a detached ſeed-bed.

VI. HARVESTING. Rape is generally *ripe* in July: ſooner or later, according to the ſeaſon. It is conſidered as fit for cutting when the forwardeſt of the ſeed has begun to turn black.

It is univerſally *cut* with ſickles, by women; who, in the ordinary management of the country, lay it in broad thin "reaps," upon the tops of the ſtubble; which they generally cut about a foot high, or as high as the lower branches will allow.

In theſe "reaps," — ſhoves or open ſheaves, — it lies until the ſap be pretty well *dried* out of the greeneſt, and the ripeſt is ready to open its pods. If it lie too long, much of the prime ſeed will be loſt in the field; if it be thraſhed too green, much will

be left in the pods, and that which is thraſhed out be difficult to cure.

The *method of thraſhing* (which has been practiſed in the Vale, perhaps, ever ſince rape has been cultivated in it) will require more deſcription than I can well perſuade myſelf to beſtow upon it. But a PUBLIC "RAPE-THRASHING," conducted as it is in this country, is one of the moſt ſtriking ſcenes which occur in the field of Rural Economy. Armies under engagement can ſcarcely exhibit, to general appearance, greater tumult; nor, on the parade, can they boaſt of better diſcipline than may ſometimes be obſerved in a well-conducted rape-thraſhing.

If the quantity to be thraſhed be large; as twenty or thirty acres; the whole country, for many miles round, are collected. The days of thraſhing are conſidered as *public days*; the lord of the harveſt keeping *open field* for all who chooſe to come into it; ample proviſion of meat and drink being made for this purpoſe. A wake or a fair is not a ſcene of greater jollity.

It is not common, however, for unbidden gueſts to go to theſe rural meetings without aſſiſting,

aſſiſting, or at leaſt offering their ſervices to aſſiſt in forwarding the buſineſs of the day. But to make ſure of hands for the more laborious departments, men and women are previouſly retained with wages over and above the ſpoils of the feaſt.

Alſo previous to the day of thraſhing, a "rape cloth,"—"carrying-cloths,"—and other neceſſaries, are to be provided. The cloths are in the hands of a few men, who let them out at ſo much a day, or ſo much an acre. A rape cloth of the largeſt ſize meaſures twenty yards ſquare: weighing more than half a ton weight. Heſſen is the uſual material of which it is made. The hire of ſuch a cloth 15 s. day.

Alſo before the thraſhing, the rape and the ſtubble are to be removed off the place (or places, if the piece be large) where the thraſhing-floor is to be made; the clods being taken off, and the hollows filled up where the cloth is intended to be laid.

The buſineſs of the day is thus conducted: The men are divided into carriers, thraſhers, and floor-men. Women fill the carrying-cloths; and boys hold them while filling.

These cloths are made of canvas, about six feet square, with poles fixt on two opposite sides (in the manner of a rolling map); openings being left in the middle between the poles and the canvas for two men to run their arms through one on either side; the poles resting by their middles on the men's shoulders; the cloth filled with rape hanging between them. In these cloths the whole of the crop is carried to the thrashing-floor.

The floor-men are divided into layers-on, turners, takers-off, rake-men, riddlers, &c. &c. &c.

The rape to be thrashed is spread thin upon the cloth, in a circle as large as the cloth will contain.

The thrashers move continually in this ring; marching with a slow step in pairs, and in two divisions; the individuals of each division following one another as closely as the nature of their employment will allow them.

The first division are preceded by the layers-on, and followed by the turners; and close upon the rear of the second division follow the takers-off; who with wooden-tined forks

forks ſhake and throw-off the ſtraw, which is piled in heaps by others with longer implements.

Finally, the rake-men run off the ſeed, with the heads of their rakes thruſt before them; forcing the ſeed into receſſes formed within the ring, or upon the corners of the cloth; where groups of fillers, riddlers, &c. &c. are employed in ſeparating the ſeed from the principal part of the pods and ſhort ſtraws which beat off in thraſhing; while others are equally buſy in putting the unwinnowed ſeed into bags, and carrying it to the "pie" or the waggon.

Toward the cloſe of the day, when the ſtraw has riſen into mountainous heaps of almoſt ſnowy whiteneſs; when the field of employment appears on its largeſt ſcale; when every department is in full work; and when every individual is animated, and not yet ſatiated, with the *entertainment* of the day; the rape-thraſhing affords the contemplative mind a pleaſing ſight; and would afford the pencil a moſt pictureſque ſubject.

The two diviſions of thraſhers moving in cloſe phalanx, with flails nimbly brandiſh-

ing, ſometimes in open view, ſometimes partially hid among the piles of ſtraw; the clothmen buſy and attentive to their various employments; the team drawing off the loaded ſeed; the carriers from every hand preſſing to the thraſhing-floor with their ſeemingly cumbrous loads; and the diſtant groups of fillers ſcattered on every ſide of the foreground; could not fail of affording matter intereſting to the painter; eſpecially in a country where a ſuitable offscape is ſeldom wanting.

It were almoſt pity that a ſcene at once ſo pictureſque and ſo truly ruſtic ſhould be ſuffered to ſink into oblivion, as in all probability it will do in a ſhort courſe of years. A more economical management is growing into eſteem; and it is highly probable that in a few years *public* rape-thraſhing will be diſcontinued, and of courſe in a few years more will be forgotten.

The ſeed is *cured* (that is, takes the heat which is incident to all recent vegetables) in the chaff or pods—provincially, "pulls"—either on a barn-floor, a granary, &c. or in "PIES" built in the field for this purpoſe with plaited ſtraw.

The

The form, that of a corn-buſhel; the diameter, ſeven or eight feet; the height three or four, filled with rough ſeed to the brim, and topped up in a conical form with ſtraw or other materials; and the whole ſecured with a coat of thatch.

This is more generally done when the markets happen to be low at the time of thraſhing; as in theſe pies the ſeed may be kept any length of time, provided a ſufficient proportion of pulls be retained among it, and provided the ſize of theſe receptacles, and conſequently the quantity of ſeed depoſited in them, be not too large.

When the ſeed has done heating, and a market offers, it is ſold, carried to the barn, winnowed, and ſent to market.

The INCONVENIENCIES of *public rape-thraſhing* now require to be mentioned. The buſtle and hurry, ſo diſſimilar to the placid routine of huſbandry, which are unavoidable on theſe occaſions, are diſagreeable to moſt men; the expence too is ſometimes unreaſonable; the hazard by weather conſiderable; and the waſte which is generally made by the

over-

over-aſſiduouſneſs of unſkilful volunteers, are all of them objections to the practice.

Beſides, the *ſtraw* and the *pulls* are in this caſe little leſs than waſted, being uſually *burnt in the field* for their aſhes, which are very few in quantity, and the neat profit ariſing from them inconſiderable.

The ſeaſon too is inconvenient: whether in hay-time or harveſt, every other employment, however neceſſary, bows to the rape-thraſhing.

It were no wonder that inconveniencies ſuch as theſe ſhould induce ſenſible men to deviſe a more eligible management of this profitable crop. Yet ſuch is the infatuation of an eſtabliſhed cuſtom, that there has not, I believe, been an inſtance of more than one deviation originating in the *Vale* during the centuries of time which rape may have been cultivated in it.

In this inſtance the rape was HARVESTED AS WHEAT;—reaped, bound, ſhocked, carried into the barn, *cured in the ſtraw*, and thraſhed out when markets and conveniency required.

The

The *binding* while yet in a flexible ſtate ſecured it from that waſte by ſhedding, which is more or leſs incurred in handling looſe reaps in a dry parched ſtate, with the pods ready to open with the ſlighteſt touch.

By *ſetting it up* in ſtooks the waſte committed by birds was much leſſened, eſpecially that by wood-pigeons, which ſettling upon the reaps, beat out tenfold what they eat; whereas in ſhocks, that which is beaten out runs down into the ſheaves and is ſaved.

In *carrying*, a tall pole was fixed at each corner of the waggon, and a large cloth thrown over them, hanging in a bag to receive the load and to catch the ſhedded ſeed.

To prevent *waſte in the barn*, the floor of the mow was covered with SOFT HAY, which ſtops the running of the ſeed, and off which it may be eaſily gathered or thrown into the thraſhing-floor; whereas *ſtraw*, being more open, admits the ſeed to run down among it, and is the cauſe of conſiderable waſte.

The *expence* under this management is comparatively much leſs than it is in a public thraſhing, more eſpecially if the piece to be harveſted be ſmall; as four or five acres for inſtance,

inſtance, which create as great a buſtle, and cauſe almoſt as great an expence, as twice that quantity.

By an accurate account of the expence of five acres of rape harveſted in the uſual manner ſome years ago, the expence appears to be 23s. an acre. The ſame quantity would now, under the preſent price of living and the preſent ſtyle of treating upon theſe occaſions, coſt from thirty to forty ſhillings an acre.

By an account equally accurate and particular it appears, that four acres and three quarters, harveſted as wheat a very few years ago, coſt only 16s. 6d. an acre, tho' thraſhed out in harveſt.

Reaping—three women, at 8d. each	2	0
Binding—a man 2s. a boy 6d.	2	6
Carrying—three loads, at 18d.	4	6
Thraſhing—three days *in harveſt*, at 2s. 6d.	7	6
	16	6

But the ſaving of expence is far from being the greateſt ſaving by this practice. The VALUE OF THE STRAW to cattle in winter

is

is found to be very conſiderable. The *ſtover* (that is, the pulls and points of the ſtraw broken off in thraſhing) is as acceptable to them as hay; and the *tops* of the *ſtraw* are eaten with avidity, "nearly equal to oat-"ſtraw better than wheat-ſtraw."—If it be well got, the *ſmaller butts* will be eaten up clean. The *offal* makes excellent litter for the farm-yard; and is uſeful for bottoms of mows, ſtacks, &c. &c. *

Setting fire to the whole in the field is a barbariſm which ought to be exploded.

Objectionable, however, as the common mode of harveſting rape in this country undoubtedly is, it has, during time immemorial, been implicitly adhered to (the inſtance laſt-mentioned only excepted) until this year (1787), when an IMPROVEMENT has taken place which bids fair to effect a revolution in this department of the huſbandry of the Vale.

In

* If we conſider the nature of rape, how nearly it is allied to the turnep, and how grateful to cattle while in a green ſtate, it is no wonder that the pods and finer parts of the ſtems ſhould be acceptable to them in a ſtate of dryneſs.

In this improved method the rape is all BOUND IN SHEAFLETS, about half the size of wheat-sheaves, with green underling plants of rape, or with long grass or other weeds, with which the stubble of rape too generally abounds.

These sheaflets are laid lightly upon the tops of the stubble to dry, not set up in shooks, as in the instance above-noticed. When they are half-dry, they are, or ought to be, turned; and when fully dry, are STACKED IN THE FIELD.

The sheaves are *carried* to the stack in sledges, each sledge being furnished with a cloth or large bag, supported by a tall frame, rising about four feet above the body of the sledge, which is light and drawn by one horse. These sledges are loaded, that is to say, the bags are filled, by women, and are taken to the stacks by boys riding upon the horses. A large cloth is spread by the side of the stack for emptying the sledges upon; which is done by overturning them; so that no time is lost either by the sledges or the forkers. A large piece of rape is soon got together in this way.

When

When it is thus *secured in ſtack*, and has taken its *heat in the ſtraw*, it remains at the option of the owner to thraſh it when, where, and in what manner he pleaſes; that is, as markets, leiſure, and other circumſtances may direct him. It is obſervable, that rape-ſeed *cured in ſtack* generally turns out a fine ſample.

One thing relative to this practice is too remarkable to paſs unnoticed. It has been an *eſtabliſhed*, and, I underſtand, the *ordinary practice*, during many years, of a Diſtrict (the Egton quarter of the Morelands) ſituated not more than ten miles from that part of the margin of the Vale (Lockton) at which it this year made its entry!

This is a ſtriking inſtance of the ſlow progreſs which practices in huſbandry, howſoever excellent, make in travelling from one Diſtrict to another. How eſſentially neceſſary then it is to regiſter them in the Diſtricts of their birth, or in places where they have reached the higheſt degree of perfection, and to diſtribute ſuch regiſters reciprocally among the various Diſtricts of the Iſland.

VII. MARKETS. There are no oil mills in the Vale. The only market is Malton, from whence

whence rape-ſeed is ſent chiefly, I believe, into the manufacturing part of the county, where oil-mills abound.

The PRICE ten to thirty pounds a laſt, of ten quarters. The *produce* of a middling crop, four quarters an acre: five quarters an acre have not unfrequently been produced.

GENERAL OBSERVATIONS. The fluctuation of price which rape-ſeed is ſubject to being in ſome meaſure perhaps influenced by the ſucceſs of the Greenland fiſhery, and the hazard to which the crop is expoſed, render it in a degree *uncertain*.

FROSTS, in ſpring, when rape is in blow, or in the critical ſtate between the bloſſoming and the formation of the pods, are its greateſt enemies. In the ſpring of 1783 much miſchief was done by froſts in May. One perſon had a piece of twenty acres almoſt deſtroyed by it. In the beginning of May this crop promiſed eight or ten pounds an acre: the ſoil rich, the crop on the ground good, and the price above par. In the wane of May the twenty acres were offered for twenty pounds! a loſs of one hundred and fifty to two hundred pounds in one article, and perhaps in one night!

But

But every crop is ſubject to hazard, and to a fluctuation in price; and although rape be liable to be cut off by froſt, it rarely is deſtroyed by that means. Upon the whole, it may be conſidered as one of the moſt profitable crops in huſbandry. There have been inſtances, on cold unproductive old paſture lands, in which the produce of the rape crop has been equal to the purchaſe-value of the land.

This productiveneſs, or, in other words, the profitableneſs of the rape-crop, is, however, held out by ſome men as an objection to its culture, under an idea that it muſt impoveriſh the ſoil.

Does not every *productive* crop *impoveriſh* the ſoil? Yet who will argue that good crops are leſs eligible than bad ones? A good crop enables the farmer to repleniſh and meliorate his ſoil with manure and tillage, which ought (generally ſpeaking) always to be in proportion to the recent productiveneſs of the ſoil, and to the ſtate of foulneſs and filth in which the nature of recent crops have placed it.

If in the culture of rape the ſoil be permitted to lie undiſturbed, either by the plow or the hoe, from ſeed-time to harveſt, ſuffering weeds of every ſpecies to mature and ſcatter their ſeeds, and to gain an eſtabliſhment in the ſoil; and if, at harveſt, the ſtraw be burnt in the field, and the aſhes be ſent to market, rape is in truth an impoveriſhing crop.

But were the ſoil to be plowed in autumn, and to be hoed during the enſuing ſummer; and were the ſtraw, &c. inſtead of being burnt, to be conſumed in the farm-yard as fodder and litter, I am of opinion that rape, in many caſes, would be the moſt eligible crop the farmer could make choice of *.

POTA-

* Whether oleaginous or farinaceous crops—whether five quarters of rape or five quarters of wheat an acre—incur the greater impoveriſhment of ſoil, is a ſubject which is yet in the hands of theory. While the food of vegetables, and the vegetable economy at large, are ſo little underſtood as they appear to be at preſent, all argument reſpecting the comparative impoveriſhment of the ſoil by different ſpecies of vegetables muſt be futile.

8.

POTATOES.

THERE is only one SPECIES of potatoe —SOLANUM *tuberoſum*:—but the *varieties* of that ſpecies are endleſs. Every county has its favourite kinds; though very different from one another. To enumerate the ſorts of any particular Diſtrict would be filling the page with barbarous terms; without conveying any uſeful information to the reader.

The VARIETIES of potatoes are tranſitory in every Diſtrict; having their entrances and their exits. The rough-ſkinned "Ruſia taty" of this Diſtrict was long a favourite; but is now, I believe, with many others which have flouriſhed for a time, entirely loſt.

There is ſome reaſon to believe that the diſeaſe, which has of late years been fatal to the potatoe-crop in this and other Diſtricts, under the name of "CURLED TOPS," has

ariſen from too long a continuance of *declining varieties*. Be this as it may, it appears to be an opinion eſtabliſhed here, by ſome years experience, that *freſh varieties*, raiſed from ſeed, are not liable to that diſeaſe *.

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* This matter, however, may not yet be ſufficiently aſcertained, to be regiſtered here as a fact. This diſeaſe made its appearance ſome years ago, with more or leſs effect, in, I believe, every part of the kingdom. In ſome parts of it, its continuance was ſhort; its effects have ceaſed; and are now almoſt forgotten. In one inſtance, (which I may have occaſion to mention hereafter) its removal was, in all probability, owing to the introduction of new varieties.

The Diſtrict under ſurvey furniſhes a remarkable inſtance reſpecting this diſeaſe. The Morelands are at preſent in a manner free from it, while the Vale is ſtill in ſome degree infected with it. Plants procured from the Morelands remain free from it in the Vale, *the firſt year*; but, being continued, become liable to the diſeaſe.

The diſeaſe of curled tops is ſeldom obvious at the firſt coming up of the plants; but attacks them as they increaſe in ſize; the entire top becoming dwarfiſh and ſhrivelled, as if affected by drought, or loaded with inſects: they nevertheleſs live, and increaſe, though ſlowly, in ſize; but the roots are unproductive. Some crops have been almoſt wholly deſtroyed by this diſeaſe.

Where the attack has been partial, *weeding out the diſeaſed plants*, as they failed, is ſaid to have had a good effect. And, *it is ſaid*, the Morelanders got rid of the diſeaſe through this means.

The method of RAISING POTATOES FROM SEED is known to ſome intelligent huſbandmen here. The prevailing method is this:—In autumn, when the apples are beginning to fall ſpontaneouſly, they are gathered by hand, and preſerved in ſand until ſpring, when they are maſhed among the ſand, or among freſh mould; ſeparating the ſeeds, and mixing them evenly with the mould. As ſoon as ſpring-froſts are judged to be over, they are ſown in fine garden mould; and as faſt as the plants get into rough leaf, and are ſtrong enough to be handled without injury, they are tranſplanted from the ſeed-bed into another bed of freſh, rich mould—in rows; which are kept clean during the ſummer. In autumn, bunches of ſmall potatoes are found at the roots of theſe plants; varying in ſize, the firſt year, from the hazel nut to the crab. Theſe being planted next ſpring produce potatoes of the middle ſize; but they do not arrive at their fulleſt bulk until the third or the fourth year.

Where the uſe of the ſtove or the garden-frame can be had, this proceſs may be ſhortened. The ſeeds being ſown within either

of theſe, early in ſpring, the plants will be fit to be planted out as ſoon as froſts are gone; by which means the ſize of the roots will be much increaſed the firſt year; and will, in the ſecond, riſe nearly to perfection.

Potatoes raiſed from ſeed are a miſcellany of endleſs varieties. Sometimes theſe varieties are planted miſcellaneouſly; ſometimes particular varieties are ſelected.

In SELECTING VARIETIES from ſeedling potatoes two things are to be attended to; the INTRINSIC QUALITY of the potatoe, and its PRODUCTIVENESS. If theſe two deſireable properties can be found in one plant, the choice is determined. To this ſpecies of attention and induſtry we are indebted for the many valuable kinds which have been, and now are, diſtributed throughout the Iſland.

It is obſervable, however, that varieties of potatoes, like thoſe of corn, are *partial to particular ſoils* and ſituations. Hence the propriety of *huſbandmen* raiſing potatoes from ſeed; as by this means they obtain, with a degree

degree of moral certainty, *a ſort adapted to their own particular ſoils and ſituations.*

But it has been already obſerved, that *varieties degenerate:* the old favourite ſorts of this Diſtrict were driven, until ſome of the individual plants barely produced their ſeed again.

Whoever has attended cloſely to the work of taking-up potatoes, muſt have obſerved *the great inequality in the productiveneſs of individual plants.* The difference in the produce of adjoining roots, where no diſparity of ſoil can influence, will ſometimes be three or four-fold. Hence it is evident, that each variety has its SUB-VARIETIES; through whoſe means, it can hardly be doubted, the *parent variety* may be *improved*, and its *continuance* be *prolonged.*

Thus the farmer has another mean in his power of improving the quality and productiveneſs of his potatoe crop, by IMPROVING VARIETIES, or, in other words, SELECTING SUB-VARIETIES, ſuperiorly adapted to *his* ſoil and ſituation.

Every attentive cultivator of this valuable root muſt be acquainted with the wide diffe-

rence in *neat profit* between a *full* and even a *middling* crop. The rent of land, the ſeed, and the labour are the ſame, whether the produce prove great or ſmall. How imprudent, then, to propagate an unproductive kind, when the means of obtaining a productive one are ſo eaſy and obvious.

Conſiderable quantities of potatoes are raiſed in the Diſtrict under ſurvey. Almoſt every man, let his farm be ever ſo ſmall, cultivates potatoes in the field; not in the ordinary method practiſed in moſt Diſtricts of the kingdom: not with the *ſpade*, but with the PLOW: a practice which has been followed invariably for near a century. I do not mean to ſpeak of it as a practice peculiar to Yorkſhire; but, I believe, there is no other county in which it is ſo prevalent. It therefore merits particular notice here.

It will be neceſſary to conſider ſeparately,

1. The Succeſſion;
2. The Soil and Proceſs;
3. The Manure and Proceſs;
4. The Seed and Proceſs;
5. Vegetating-Proceſs;
6. Harveſt-Proceſs;

7. Markets;

7. Markets; or Application of Produce;

8. The Effect of the Potatoe Crop on Soils.

I. Succession. In the common practice of the country, potatoes are cultivated as a *fallow crop for wheat*: the cleaneſt part of a ſtubble, or other ground, intended to be ſummer-fallowed for wheat, being ſet apart for potatoes. They are ſeldom planted on *ſward*; the common predeceſſor of the potatoe-crop, in moſt other places. It is, however, underſtood, here, that they do beſt upon "*freſh land*;" that is, land which has not been too long under the plow.

II. Soil and Tillage. Formerly potatoes were confined to *light friable loams*: and the ſorts which were cultivated in thoſe days might require this reſtriction: now they are grown in all ſoils; different varieties being found partial to different land. It is obſerved, however, that let the ſort be ever ſo well adapted to the ſoil, *heavy cold land* ſeldom gives light well-flavoured potatoes.

The ſoil is broke-up in winter or ſpring, and worked-over two or three times with the plow

plow and harrow, as for turneps; getting it as fine as the nature of an early ſpring-fallow will admit of.

III. MANURE. Dung: generally long ſtrawy dung; which is ſet in heaps, upon or near the patch to be planted; previous to the ſeed-plowing. The quantity twenty to thirty cartloads an acre.

IV. SETS and PLANTING. Formerly it was the common practice of the Diſtrict to plant *whole* potatoes. In taking up potatoes, they were ſorted into large, ſmall, and *ſets*; which were of the middle ſize.

At preſent, that practice is, I believe, entirely laid aſide; it being now the cuſtom to *cut* potatoes into more than one ſet: namely, middle-ſized ones into two, large ones into three or four; leaving the cuttings much larger than is done in moſt other Diſtricts; where eight or ten ſingle-eyed ſets are ſometimes cut out of one potatoe.

The reaſon given for the uſe of LARGE CUTTINGS is, that the young plants may acquire at the outſet a ſtrong vigorous habit, and thereby be enabled to throw out and maintain a ſufficient number of roots and branches.

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And the reaſon I have heard given for uſing large potatoes in preference to ſmaller ones is, that "large ones are more likely to produce large ones again." The reaſoning, in both caſes, appears to be good.

The ſets being prepared, the *ſeed-plowing* is given. In this plowing the land is laid up in ridgelets, ſimilar to thoſe in which gardeners leave the ſoil, in the operation called trenching, when it is not intended to be immediately cropped. The width of theſe ridgelets depends on the judgement of the planter; from two and a half to three feet is the uſual width.

This operation is performed with a common plow, in the way in which rice balking (ſee NORF. ECON.) is uſually done; endeavouring to leave the bottoms of the drills *ſtraight*, *narrow*, and *clean*. One ſtrong horſe, if the ſoil be light and fine, or two horſes, one before the other, if otherwiſe, is the beſt team for this work. Horſes abreaſt are apt to foul the drills. The uſual depth of the drills is that of the cultivated ſoil.

In theſe drills the ſets are dropt, by women or boys, at twelve to eighteen inches diſtance,

diſtance, according to the judgement of the farmer. If the quantity of land be given, and the number of ſets be indefinite, twelve inches may be a ſufficient diſtance; but if, as is generally the caſe here, the quantity of land be greater in proportion than the number of ſets, the farther they are planted aſunder, the greater will be the produce in proportion to the plants.

While one party are planting, another are carrying on the dung, in ſcuttles; either ſcattering it regularly along the drills, or applying it partially to the plants; covering each ſet with its due portion of manure. This may appear to be a tedious buſineſs; it certainly is a dirty one: but not ſo tedious as inexperience may ſuggeſt. If the loads be broken into three or four heaps, and theſe be diſtributed conveniently, five or ſix women will plant and cover an acre a day in this manner.

The plow cloſes the buſineſs of planting: the ridges are either returned upon the plants and dung, with a common plow, or are ſplit with a double-mould-board plow; in either caſe,

caſe, raiſing the ſoil into ſimilar ridges over the drills of potatoes.

V. VEGETATING-PROCESS. As ſoon as the young plants make their appearance, the land is harrowed lengthway of the ridges; to tear up the ſeed-weeds which grow upon their crowns, and to ſmother thoſe in the trenches with the mould. In a ſhort time afterward the plow, with the ſhare broad and ſharp, is run through each interval, and the rows cleaned with the hoe. In a few weeks more the intervals are again ſtirred with the plow, and the hand-hoing repeated. If leiſure and the depth of the ſoil will permit, a ſecond earthing may be given; and, when the plow and the hoe are no longer able to find admiſſion among the tops, hand-weeding is, or ought to be, made uſe of.

By theſe means land may be as effectually cleaned from *ſeed-weeds* as by fallowing; and no man, who has any regard for his own intereſt, or for his character as a farmer, would ever think of planting potatoes in a bed of *couch and thiſtles*.

VI. HARVEST-PROCESS. Formerly, potatoes were taken up with the *plow*; endeavouring

vouring to get the ſhare below the potatoes, and to overturn the ridges. But without great care, many potatoes were cut in this operation, and many more unavoidably buried; ſo that picking again and again was neceſſary; and, at leaſt, ſome were left in the land.

At preſent, the prevailing practice is to take them up with common *dung-forks*: an operation which is at once effectual; and which is by no means ſo tedious when potatoes are grown in ridges, as when, in the ordinary way, the entire ground is to be dug over. In ridges, the roots are diſtinct, and are eaſily laid bare; being open on three ſides, with free vent for the mould. The fork being forced down behind them, the whole nidus are at once expoſed.

The way of *preſerving potatoes*, here, has been either to bury them in deep pits within the ground; or to houſe them in a barn or other out-building, guarding them on every ſide with ſtraw. The dangers to be guarded againſt are *froſts* and *wetneſs*.

At preſent (the evil effects of *deep pits* having been diſcovered) the growing practice

ſeems

ſeems to be that of laying them in long ridge-like heaps upon the *ſurface* of arable ground, and covering them up with the ſurrounding ſoil, ridged-up in a roof-like form.

A LONG ARCHED VAULT; running endway into the ſide of a hill (or the ſide of a pit or other hollow); with a door at the end, level with the ground below; with a road over the top; and with one or more ſhooting holes, ſimilar to thoſe of coal vaults under the ſtreets of towns, would be an eligible receptacle for potatoes.

VII. MARKETS and APPLICATION. In this part of the Diſtrict, few potatoes go to *market*, except for ſets in the ſpring.

Nor is the *application* of potatoes to *fatting ſtock* extenſive. In *this* Diſtrict SWINE are almoſt the only ſpecies to which they are applied. Some few may be given to cows.

But in the bottom of the VALE OF YORK, great quantities have of late years been applied to the FATTING OF CATTLE. They are, I believe, invariably given to them raw; with alternate meals of hay or barley meal: the

the method of fatting with potatoes being similar to that of fatting with turneps.

The quantity of potatoes grown upon an acre under the management above-described; and their profitableneſs as an article of food for *cattle*;—I have not been fortunate enough to aſcertain with ſufficient accuracy.

VIII. THE EFFECT OF POTATOES ON LAND. Various are the opinions of profeſſional men on this ſubject. One aſſerts that they are great *impoveriſhers of the ſoil*; that they are *hurtful to the corn*, and *ruinous to the graſs*, which ſucceeds them. Another is clearly of opinion that they are *friendly to corn*, and *not enemies* to graſs.

The diſpute may, perhaps, be ſettled ſatisfactorily in this manner.

The potatoe contains, indiſputably, a great quantity of nouriſhment; and is therefore, perhaps, as indiſputably, a great exhauſter of the ſoil.

But the quantity of vegetable nouriſhment carried off in the potatoe crop is not the only cauſe of exhauſtion: it is notorious to common obſervation, that this crop leaves the ſoil in a ſingularly *friable fertile ſtate*; cauſing an

an abundant produce of the crop which ſucceeds it.

If, taking the advantage of this *prodigality of the ſoil*, the huſbandman keeps cropping it year after year with corn; and, when it will no longer anſwer his unreaſonable expectations, lays it down to graſs,—it is no wonder that it ſhould be unproductive: for having laviſhed all its riches on an *ungrateful* occupier, it is of courſe reduced to *extreme poverty*.

On the contrary,—if, after a crop of potatoes, well dunged for, only one or two crops of corn be taken, and the land laid down to graſs, *while yet in a ſtate of fertility*, the potatoe crop is, to vulgar appearance at leaſt, friendly to the crops which ſucceed it.

Hence it follows, that land which has been cropped with potatoes ſhould preſently afterwards be laid down to graſs; or ſhould be *timely repleniſhed* with a quantity of manure *proportioned to the degree of exhauſtion it has undergone*.

GENERAL OBSERVATIONS. The value of POTATOES as a *fallow crop*, and as an article of *food for cattle* compared with TURNEPS and

CABBAGES for the ſame purpoſes, may be conſidered thus:

Potatoes are *more nutritious*; and, in the opinion of thoſe who have uſed them, fat cattle much *quicker* than either turneps or cabbages. Potatoes, too, being ſecured from the ſeverities of winter, are a more *certain* article of fatting than turneps or cabbages; both of which are liable to periſh under an alternacy of froſt and thaw; and the turnep, more particularly, is locked-up, or rendered difficult to be come at, during a continuance of ſnow or froſt. Turneps and cabbages, if they out-weather the ſeverities of winter, occupy the ſoil in the ſpring when it is wanted to be prepared for the ſucceeding crop; while potatoes, if properly laid up, are a food which may be continued without inconveniency until the cattle be finiſhed, or the graſs has acquired the requiſite bite for finiſhing them in the field.

On the other hand, potatoes are a diſagreeable crop to cultivate: the planting is a tedious dirty buſineſs; and taking them up, may be called the filthieſt work of huſbandry; eſpecially in a wet autum: and ſtill

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more eſpecially on a *tender tenacious ſoil:* while, upon *weak thin land*, the extraordinary quantity of manure which is requiſite, renders them impracticable to be cultivated, on a large ſcale, in ordinary ſituations.

Upon the whole, it appears to me evident, from the information I am at preſent in poſſeſſion of, that the three crops under conſideration are each of them ſuperiorly eligible when they are cultivated on the SOILS to which they are peculiarly and reſpectively adapted.

A ſtrong tenacious ſoil is equally unfit for potatoes and turneps, while it is ſingularly adapted to CABBAGES.

Light ſhallow unproductive ſoils are equally unfit for potatoes and cabbages; while with good huſbandry TURNEPS may be grown on them with advantage.

Rich ſound deep ſandy loams are acceptable to the three. But the POTATOE appears to be poſſeſſed of ſome ſuperior properties, which render it at leaſt an object of experiment in CLEAN RICH SOILS.

9.

FLAX.

WITHIN the laſt twenty years a conſiderable quantity of flax has been grown in the Vale. The richer parts of it are not ill adapted to this crop; but whether theſe parts are now gone over, or whether the reſtrictions of landlords have checked the ſpirit of cultivation, the culture of it is now evidently on the decline.

The flax-crop, however, being confined to a few individual Diſtricts, it may be proper to give a ſketch of its management in this, although it cannot here be called a ſtaple crop.

1. Species.
2. Soil and Succeſſion.
3. Soil-proceſs, and Manure.
4. Seed-proceſs.
5. Vegetating-proceſs.
6. Management of the Crop.
7. Markets.

I. SPECIES.

I. SPECIES. We have only one SPECIES of cultivated flax—*linum uſitatiſſimum*.—The *variety* cultivated here is the blue, blow, or lead-coloured flax—provincially, "BLEA LINE."

II. SOIL AND SUCCESSION. Flax requires a *rich dry ſoil*. A deep fat ſandy loam is perhaps the only ſoil on which it can be cultivated with advantage.

OLD GRASSLAND bearing this deſcription is conſidered as the propereſt matrix for line. It is not unfrequently, however, ſown on *arable land*; and when the ſoil is in heart, dry, friable, and free from weeds, with good ſucceſs.

III. SOIL-PROCESS and MANURE. The *ſoil-proceſs* generally conſiſts of a *ſingle plowing*, whether of ſward or of wheat-ſtubble.

In the latter caſe, however, it is moſtly bad management. If line be ſown on *old corn-land*, it ought in general to be *purged from weeds*, and rendered *perfectly friable* by a well-worked SUMMER FALLOW.

Manure is, I believe, ſeldom, if ever, ſet on immediately for the line crop.

IV. SEED-PROCESS. 1. The *time of sowing*, May. 2. The *preparation of the soil.* Much depends on the state of the soil at the time of sowing. It should neither be wet nor dry; and the surface ought to be made as fine as that of a garden-bed. Not a clod the size of an egg should be left unbroken. 3. *Quantity of seed*, two bushels an acre. 4. *Covering the seed.* Sometimes the surface is raked (after being first harrowed) with garden or hay-rakes. If, at the same time, the clods and other obstructions, which could not easily be reduced, were drawn into the interfurrows, the operation would be still more complete. A light hand-roller used between the final harrowing and the raking would assist much in this intention.

V. The VEGETATING-PROCESS depends chiefly on careful *weeding*; an operation which ought to be performed with great scrupulousness. Hence land which is sown with flax should be made as free from weeds as possible; otherwise the expence of weeding, or the injury to the crop, becomes considerable.

If, through a *droughty season*, the plants come up in *two crops*; or if by any other accident,

cident, or by miſmanagement, the plants be *too thin* upon the ground, the crop is irreparably injured.

The nature of flax is ſuch, that where it has room at the root, or whenever it gets its head above the plants which ſurround it, it ſends out *ſide-branches*, and loſes in a great meaſure its *upward tendency*. But its goodneſs as a crop depends on its running up with *one ſingle ſtalk* from the root to the ſeed. *At whatever height it ramifies, there the length of line terminates.* The branches are inevitably worked off in dreſſing; and the ſtem itſelf, unleſs it bear a due proportion to the bulk of the crop, is likewiſe worked out among the refuſe.

Hence the neceſſity of having an EVEN, FULL CROP. Clods before the ſowing, by making the ſeeds glance in falling, prevent the ſurface from being evenly ſeeded; and thoſe which remain when the ſeeds are in the ground, prevent them from riſing regularly. The infant plants, unable to pierce the clod, form themſelves in a circle round it, leaving a vacancy in the center favourable to their early ramification.

This being the nature of the plant, a *ſecond coming-up* ſeldom riſes to profit; for being overgrown by the ſpreading plants of the firſt crop, it remains weak, ſhort, and underling, and, at pulling-time, is left ſtanding to rot upon the land. *Thus by a droughty ſeed-time the entire crop is frequently ſpoiled.*

Nor is drought the only enemy of flax: it is liable to injury from *ſpring froſts*; and is ſometimes attacked, even when it is got five or ſix inches high, by a ſmall white *ſlug*, ſtripping off the leaves to the top, which bending down with their weight, they will ſometimes draw into the ground; thus in part checking, and in part deſtroying the plants.

If at the time of weeding a piece of flax do not *promiſe fair for a crop*, it is always bad management to beſtow *further labour and expence upon it.* A crop of turneps or rape will generally pay much better than *ſuch* a crop of flax.

VI. MANAGEMENT OF THE CROP. The *time of harveſt* in this climature is generally the latter end of July or the beginning of Auguſt. If the crop be intended for line of

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the firſt quality, the time of pulling is when the ſeeds are fully *formed*, but not yet ripe. If the *ſeed* be ſuffered to *mature*, the quality of the flax is lowered; the filaments are harſh, and the cloth made from them will not take a good colour in whitening.

The "*pulling*" is done by taking the full-ſized plants near the top and drawing them up, or rather breaking them off by the roots. One hand is uſed in pulling, while the other is employed in receiving the handfuls, until as much is collected as both hands can graſp. Some ſhort underling plants are then gathered for a band, and thus a ſheaflet is formed.

Theſe ſheaflets are collected into heaps, and immediately taken to the *watering-pit*, in which they are completely immerged; firſt by treading, and afterwards by loading them with ſods or other heavy materials.

The immerſion is, or ought to be, carefully attended to; for that which happens to be expoſed above the ſurface of the water is materially injured.

The "ſteeping" is continued a longer or ſhorter time, according to the weather and other

other circumſtances. It ought to lie until it be ſufficiently tendered without being rotten; but to catch this ſtate requires a nicety of judgement, which can be learnt from long practice only. It generally lies about ten days in ſteep; ſometimes a fortnight.

From the "line-pit" it is carried to the "rating-ground;"—a piece of unbroken aftergraſs, where the ſheaflets are untied, and the flax ſpread thin upon the graſs. It is calculated that a full crop ought to cover as much ground as it grew upon. Here it lies until it be ſufficiently "rated;" namely, until the more woodlike ſubſtance of the ſtems will ſeparate freely from the filaments or flaxen fibres, while theſe remain yet untainted; therefore the length of time of rating, like that of ſteeping, depends much on the weather, and can be aſcertained only by the daily obſervation of a perſon whoſe judgment has been matured by long experience.

If when it reaches this ſtate, the weather be ſuch that it will not dry as it lies upon the graſs, it is ſet upon its butts in parcels reſembling ſugar-loaves, or large untied gaits. When dry, it is laid up in a barn or other con-

convenient place to be "swingled," when leisure and conveniency will permit.

The "*swingling*"—(and, generally, the "steeping" and the "rating")—is done by men who make a business of it, travelling from place to place wherever flax is under cultivation.

The process of swingling is that of separating the woody substance from the filaments. To effect this, the rough stubborn stems are mangled in a "break;" an instrument which breaks the brittle substance of the stem—provincially, the "bun"—into fragments, without separating them from the filaments. The separation is effected by beating, or rather *hewing* the mangled stems against a "swingling stock"—(an upright stout board or slab) with a "swingle-hand"—or wooden broad-axe; the swingler from time to time drawing out the tow or short broken filaments, by means of a "foot-heckle"—(resembling the tools of the flax-dressers);—and thus using alternately the swingle-hand and the heckle, proceeds until the line be rendered fit for the flax-dresser; namely, until the principal part of the fragments

ments—provincially, "shivs" or shivers,—and the principal part of the tow or short filaments, be extricated; when the flax is folded up into bundles for sale.

The swingling is done by the stone, at a price proportioned to the length and stubbornness of the crop. Flax which is short or tough requires much more labour than that which is longer, or from which the shivers part freely. From eighteenpence to two shillings a stone, with board and lodging, is given for swingling: about twentypence is the common price. The work is very laborious.

VII. Markets.—A small manufactory of coarse linen being carried on in the Vale, a market is always at hand. The price of rough flax varies with foreign markets and its intrinsic quality. Seven to eight shillings a-stone (of fourteen pounds) may, I believe, be considered as a medium price. From thirty to forty stones an acre a middling crop.

General Observations. From this sketch of the culture and management of flax it appears, that the goodness of the crop depends

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in ſome meaſure upon its *length*; and this upon its *evenneſs* and *cloſeneſs upon the ground*. The ſtems ſhould be *tall*, *ſtraight*, and *ſlender*. Three feet high is a good length of ſtem; and the thickneſs of a crow's quill a good thickneſs. A fine ſtalk affords more line and fewer ſhivers than a thick one does. A *tall*, *thickſet crop* is therefore deſirable.

But, unleſs the LAND BE GOOD, a *thick* crop cannot attain a ſufficient *length* of ſtem. Hence the folly of ſowing flax on land which is unfit for it.

Nevertheleſs, with a SUITABLE SOIL, a *ſufficiency of ſeed*, *evenly diſtributed*, and a *favourable ſeaſon*, flax may turn out a very profitable crop.

The flax crop, however, has its DISADVANTAGES: it interferes with harveſt, and is generally believed to be a great exhauſter of the ſoil, eſpecially when its ſeed is ſuffered to mature *.

Its

* In this caſe, the ſheaflets are ſet up in ſtooks in the field, and, when dry, are carried to the barn, thraſhed, rated, ſent to the watering-pit, and treated as prime flax.

Its cultivation therefore ought to be confined to RICH GRASSLAND DISTRICTS, where harveſt is a ſecondary object, and where its exhauſtion may be rather favourable than hurtful to *ſucceeding arable crops*, by checking the too great rankneſs of rich freſh-broken ground.

It is alſo evident from the foregoing ſketch, that much judgement is requiſite to the right-ordering of flax. No man, therefore, ought to attempt its cultivation on a large ſcale until he has himſelf ſtudied the various proceſſes maturely, in a Diſtrict where it is cultivated, or has procured from ſuch a country a perſon who is enured to them by long practice.

But no prudent man will put himſelf to either of theſe inconveniencies before he has tried, by ſmall EXPERIMENTS, whether his SOIL be ſufficiently AFFECTED BY FLAX, to enſure, under proper management and a good ſeaſon, a moral certainty of a CROP.

TOBACCO.

10.

TOBACCO.

SOME YEARS ago (moſtly in the year 1782) large patches of tobacco, together amounting to ſeveral acres, were grown in this Vale: and in the Vale of York a ſtill greater quantity was cultivated.

In this Diſtrict it did not excite the notice of legal authority: in the richer parts of the Vale, where the greateſt quantity was raiſed, it was cured and manufactured by a man who had formerly been employed upon the tobacco-plantations in America; and who not only cured it properly, but gave it the proper cut, and finally prepared it for the pipe.

But in the Vale of York, the cultivators of it met with leſs favourable circumſtances. Their tobacco was publicly burnt, and themſelves ſeverely fined and impriſoned. Penal-

ties,

ties, it was ſaid, were laid to the amount of thirty thouſand pounds *.

This was enough to put a ſtop to the illegal cultivation of tobacco. But, perhaps rather unfortunately, it has likewiſe put a ſtop to the cultivation of that *limited quantity* which the *law allows* to be planted for the purpoſes of "phyſic and chirurgy."

The quantity of land allowed to be cultivated for theſe purpoſes is, I believe, HALF A ROD, which is ſomewhat more than FIFTEEN SQUARE YARDS of ground; a patch of ground ſufficient, under proper management, to raiſe tobacco enough for all the *medical* purpoſes of a farm-houſe; in which it is, on many occaſions, uſeful. In cutaneous diſorders of cattle and ſheep, it is univerſally applied.

I will therefore juſt mention ſuch circumſtances reſpecting its cultivation in this neighbourhood as I collected in the autumn of 1782. I had not an opportunity of ſeeing the plants on the ground.

The SPECIES was probably NICOTIANA *ruſtica*, the ENGLISH TOBACCO; ſo called from

* The penalty, I believe, is 10l. a rod, or 1600l. an acre.

from the circumſtance of its being the firſt ſpecies cultivated in England.

The *ſeeds* were procured at the ſeed-ſhops, and handed about from one cultivator to another.

The *ſeed-bed* as rich and fine as poſſible.

The *time of ſowing* as ſoon as the weather became warm enough to make it vegetate: perhaps in April.

When the ſeedling plants were ſtrong enough to bear removing, they were *tranſplanted* from the ſeed-bed to the patch on which they were intended to ſtand.

In the practice of one, they were planted out in the *quincunx* manner, a foot aſunder: in that of another, in *rows* two feet apart, and one foot aſunder in the rows.

In both caſes, they were carefully *hoed*, and kept free from weeds during the ſummer.

In autumn, when the flowers began to drop off, they were *cut* and *dried in the ſhade*.

When dry, the leaves were *picked off*, and *preſſed down cloſe*, in caſks or other veſſels.

The ſpring of 1782 being late, the plants did not, upon weak ſoils, reach maturity before the froſts began to ſet in. Hence a rich

forcing ſoil ſeems to be neceſſary to the culture of tobacco in this climate.

The vegetation, however, may be greatly forwarded by forcing the ſeedling plants in a hot-bed, and tranſplanting them out as ſoon as the froſts of ſpring are over.

II.

CULTIVATED GRASSES.

THE SPECIES of *graſſes*,—or more properly HERBS,—cultivated in this Diſtrict for the purpoſes of hay and paſturage are,

Clover—*trifolium pratenſe*—red clover *.

White clover—*trifolium repens*—white clover †.

Trefoil—*trifolium agrarium*—hop-clover.

Trefoil—*trifolium procumbens*—trefoil.

Rye-graſs—*lolium perenne*—rye-graſs.

Hay-

* RED CLOVER; a *cultivated variety* of the MEADOW TREFOIL. See NAT. GRASSES.

† WHITE CLOVER; a *cultivated variety* of the CREEPING TREFOIL.

Hay-ſeeds—*holcus lanatus.*

Rib-graſs—*plantago lanceolatus.*

Cinquefoil—*hedyſarumonobrychis*--ſaintfoin.

Theſe ſpecies are cultivated ſeparately or miſcellaneouſly, as ſoils and circumſtances point out. The DURATION of the intended ley is the firſt thing conſidered; therefore the principal diviſion of the ſubject is into

1. Temporary leys.
2. Perennial leys.

I. TEMPORARY LEYS. The *annual* ley, which is now common in moſt parts of the kingdom, and the *biennial* ley, which is prevalent in Norfolk, are almoſt equally ſtrangers in this Diſtrict.

Fallowing for wheat is ſtill a common practice here. Clover ſtubbles are ſeldom uſed as matrices for that crop. An ill-grounded notion prevails that wheat after clover breeds quicks!

If land be ſtocked with couch when the clover is ſown, the ſucceeding wheat-crop, no doubt, by occupying the ſoil ſo long with only a ſingle plowing, increaſes the quantity. There is no worſe management than ſowing wheat on a *foul* clover ley; but this

is no argument againſt annual leys. If the land be clean when the clover-ſeed is ſown, it will as ſoon breed ſugar-canes as quicks.

In a graſsland country, however, clover leys are leſs wanted than tillage; and in the cooler, better-ſoiled parts of the Vale they may, perhaps without much impropriety, be diſpenſed with. But on the drier thin-ſoiled lands which lie upon the marginal heights, temporary leys would be found far preferable to the unproductive "meadows" which now occupy a conſiderable part of their ſurface. The Norfolk ſyſtem of huſbandry appears to me to be ſingularly well adapted to the lands of the "high towns;" the more productive parts of which ought not, in my opinion, to be permitted to bear more than two crops of corn, nor two crops of graſs, ſucceſſively.

II. PERENNIAL LEYS. Formerly, in this as in other Diſtricts, arable land was laid to graſs by the mere ceſſation of plowing. When land refuſed to produce corn any longer, it was permitted to lie down to *reſt*; or, in other words, to lie waſte. For ſeveral years it produced nothing but weeds; and theſe, of courſe, of the leaneſt kind. The wild birds

birds were its only occupiers. At length, however, the graſſes, by ſome myſterious proceſs of nature, would begin to make their appearance. But their progreſs was ſlow: it was twenty years, perhaps, before a full crop of them was produced.

Before the cultivation of graſſes was known in the Iſland, ſuch barbarous management was excuſable; but how this and other counties could continue it more than half a century after the cultivation of them was fully eſtabliſhed in a neighbouring county (Norfolk), is a matter of ſome aſtoniſhment. Thirty years ago the cultivated graſſes were ſtrangers in the Vale. The production of perennial leys was left wholly to nature; and even yet there are ſome *few* individuals who remain bigots to Nature's practice.

It is, no doubt, a fact as notorious as it is intereſting, that all the charming old graſs-lands with which *this* neighbourhood at preſent abounds is of NATURE'S LEYING. For richneſs and variety of herbage (as will appear in the next ſection) it is no where, perhaps, exceeded. It is alſo notorious that there has been very little, if any, well-her-

baged meadow produced in this Diſtrict through the means of *artificial graſſes*.

Striking, however, as theſe facts may be, they only afford matter of argument, do not bring proof, againſt the CULTIVATION of PERENNIAL LEYS.

If a ſoil already *exhauſted by corn crops*, and *foul through a want of tillage*, be rendered ſtill fouler by having the *ſeeds of weeds*, under the denomination of "hay-ſeeds," *ſown* over it; and if, added to this, the weedy crop, which ſuch management muſt neceſſarily afford, be *mown* year after year and the produce *carried off*, it is no wonder that the ſward, inſtead of improving by age, ſhould annually go off, and that the ſoil ſhould at length require to be given up again to the plow.

On the contrary, if a ſoil, naturally ſuited to graſs, in good heart, and thoroughly cleanſed, be ſown with the ſeeds of herbage ſuitable to its nature, and free from the ſeeds of weeds; and if for a few years the young ley be paſtured in the ſpring, and the weeds and broken graſs be ſwept down with the ſithe after Midſummer, a well-herbaged dur-

able

able ley may, on a certainty, be produced, and this without *one* year's crop being loſt.

The DURATION of good herbage, however, depends much on the *nature* of the SOIL, and much alſo on the *ſtate* in which it has been kept. Land which has been kept in TILLAGE for centuries is peculiarly affected by the graſſes, which, under ſuch circumſtances, will flouriſh for a length of time, even on ſoils which are not peculiarly adapted to them. Some of the graſslands of this neighbourhood are now growing toward a century old; yet notwithſtanding they are generally mown year after year without intermiſſion, they are ſtill in a flouriſhing ſtate; not, however, I apprehend, entirely owing to the method in which they were leyed, but to the land having previouſly been long in TILLAGE.

Nevertheleſs, I am of opinion, that the *variety* and *cloſeneſs* of the herbage under notice ariſes, in ſome meaſure, from the METHOD OF LEYING. But taking this for granted, and admitting that the produce is ſomewhat improved or increaſed by an endleſs variety and an extreme cloſeneſs of herbage, no man, without the pale of dotage,

can conſider this advantage as a full compenſation for the loſs of at leaſt *ten* years crops.

Of late years, the art of leying land to graſs has, in this Diſtrict, made rapid ſtrides toward perfection.

In the CHOICE OF HERBAGE, judicious huſbandmen are guided by the *nature of the ſoil* to be ſwarded. On the ſouthern height a calcareous ſoil, SAINTFOIN, is cultivated as a perennial ley. In the Vale, where the ſoils are non-calcareous, a MIXTURE of graſſes are cultivated for that purpoſe.

Formerly, "HAY-SEEDS" were in high eſtimation, and they have ſtill ſome few advocates left. They conſiſt either of a collection of graſſes and weeds as collected from the hay-loft, or a leſs foul ſelection of the MEADOW SOFT GRASS, which is cultivated ſeparately, and thraſhed as corn for its ſeeds.

But this is far from being an eligible graſs for cultivation, and is now entirely exploded by judicious huſbandmen; among whom RYE-GRASS has at length grown into due eſtimation; and has very properly ſupplanted in their eſteem the whole tribe of hay-ſeeds *.

RYE-

* The growers of the ſeeds of the ſoft graſs are the only perſons who have profited by its cultivation. Eighty buſhels an acre have been produced.

RYE-GRASS, nevertheleſs, has ſtill its enemies. But they are either men who are unacquainted with it, or who have been unfortunate in their experience.

If the ſeeds be foul (as is too generally the caſe) the herbage will of courſe be of a bad quality. If it be ſuffered to run up in the ſpring, before ſtock be turned upon it, much of it will no doubt be left uneaten. If ſuffered to ſtand too long before it be mown, its hay will of courſe be ordinary. Under bad management even the wheat crop is unprofitable. But will any man bring this as an argument againſt the intrinſic quality of wheat; or againſt its being proper to be cultivated in ſoils and ſituations to which it is adapted?

The ſeeds of rye-graſs ſhould be *winnowed*, and freed from the ſeeds of weeds, with the ſame ſcrupulouſneſs that is beſtowed on the ſeed of wheat or other grain.

If rye-graſs be intended for PASTURAGE, it ought to be broken as *early in ſpring* as the land will bear ſtock; which ought to be ſo proportioned, that it never can get above a moderate bite.

If

If it be ſhut up for HAY, it ought to be mown as ſoon as the ſeed-ſtems are fully formed; *before the flowers come out.*

If it be intended for SEED, it ought to ſtand until *the flowers be fully blown.* But it muſt not be expected, in this caſe, that the *ſtraw* will prove *hay.* Who ever expected *hay* from oats or barley, *which ſtood to mature the ſeed?*

As a *ſpring* food, RYE-GRASS is indiſputably preferable to every other graſs; and in *autumn* it renews its nutritious bite. This property, added to its productiveneſs, and to the facility with which its ſeeds may be collected in quantity, give it a decided pre-eminence to every other blade-graſs at preſent known in theſe kingdoms.

But rye-graſs, like other early graſſes, remains in a great meaſure unproductive during the *ſummer* months. This renders it improper to be ſown *alone*, for PASTURAGE.

WHITE CLOVER, the TREFOILS, or other *ſummer herbage*, is requiſite to be cultivated with it.

All perhaps that is wanted in addition to theſe, in order to render the buſineſs of cultivating perennial leys as nearly perfect as common

common practice may require, is one or more SUMMER BLADE-GRASSES of a nutritious quality and productive growth, and whose seeds may be easily collected, separately, from the seeds of weeds.

The MEADOW FESCUE (FESTUCA *elatior*) is most likely to answer the purpose.

The MEADOW POR (POA *pratensis*) has some properties which recommend it strongly; but its seeds are not easily separable. Nevertheless, it might be worth some pains to cultivate this grass. It is strictly a *summer*-grass. It blows sufficiently late, and bears drought with uncommon hardiness. I have seen it flourish on a wall throughout summer. And during the drought of 1786, Mr. Curtis's garden afforded a striking instance of its nature in this respect: it remained green, and in growth, while its neighbours were most of them scorched up with drought.

This District has adopted the NARROW-LEAVED PLANTAIN as a summer grass. As an article of *pasturage* for cattle and sheep, it is in high esteem: it is not, however, well-affected by horses; and as an article of *hay* it is detrimental to the crop; retaining its sap

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an unuſual length of time; and when fully dry falls into a ſmall compaſs; or is broken into fragments, and left behind in the field. An advantage of this graſs is, that its ſeeds may be eaſily procured in an unadulterated ſtate. A ſmall proportion of it may be eligible: it has now ſtood the teſt of twenty years eſtabliſhed practice, and ſeems to be ſtill in good eſtimation; even among obſervant huſbandmen.

THE MIXTURE OF SEEDS for a perennial ley varies in this Diſtrict with the ſpirit and judgement of the occupier. Some make choice of the cheapeſt, and imagine a ſmall quantity to be ſufficient; while others chooſe thoſe which are moſt ſuitable to their reſpective ſoils, and think they cannot throw on too many.

The moſt promiſing young perennial ley which I have ſeen in the Vale, and which is in the occupation of one of the largeſt and beſt farmers in it, was ſeeded with the following ſeeds and proportions an acre: namely, fourteen pounds of WHITE CLOVER; and fourteen pounds of RED CLOVER, TREFOIL,

RIB-

RIB-GRASS, and RYE-GRASS, mixed in equal proportion of weight.

But the more general mixture is fourteen pounds of RED CLOVER, WHITE CLOVER, TREFOIL and RIB-GRASS mixed in equal quantities; with a buſhel or two of RYE-GRASS ſown ſeparately.

This, however, is an unneceſſary quantity of RYE-GRASS; a gallon to a peck an acre of clean *winnowed* ſeed appears in the above inſtance, as well as in the Norfolk practice, to be abundantly ſufficient.

The AFTER-MANAGEMENT of perennial leys is, in the ordinary practice of this Diſtrict as it is in that of moſt other places, extremely injudicious.

Letting the land lie eight or ten years in worſe than a ſtate of waſte is very little wider from the line of right management than mowing a young perennial ley every year, and carrying off the produce. They are two extremes which ought to be equally avoided. One of them is giving up preſent profit, entirely, for future advantage: the other, regardleſs of future advantage, is graſping at preſent profit.

In

In tenants at will, without confidence in their landlords, there may be ſome excuſe for ſuch management. But they are not, perhaps, aware that by ſuch conduct they are deſtroying that confidence which landlords ought to have in their tenants: thereby militating againſt themſelves and their profeſſion.

Landed gentlemen in general are tenacious of their old graſsland: and with good reaſon: even though it might, for a time, be worth thrice the value in a ſtate of aration.

An inſtance occurs in this neighbourhood, in which a piece of old graſsland broken up to arable has thrown out its purchaſe-value, as graſsland at the time of breaking up, in the firſt three crops.

All ſward, unleſs the ſoil be ſingularly good, the management extraordinary, and the manurings frequent, will in time become unproductive. Even the ſward of well-ſoiled commons, off which no produce has been taken, is, when incloſed, found weak and unprofitable.

Nevertheleſs, it may be more prudent in men of landed eſtates to hand down their old graſsland

graſsland to their ſucceſſors in the ſtate in which it is, than to permit it to be broken up and reduced, by improper treatment, to a ſtate ſtill leſs valuable. And were there no means of avoiding the evils of improper management in tenants, landlords would be fully warranted in a rigid refuſal of their requeſts to break up old graſslands, though unproductive and unprofitable.

But, in the management of an eſtate, GRASSLAND and HEDGES ſtand in nearly the ſame predicament. It is the tenant's intereſt to *injure* them; and the landlord's buſineſs, of courſe, to look to their *preſervation*.

If on a farm, already *in due proportion* as to GRASSLAND and ARABLE, the tenant requeſt to break up a piece of unproductive ſward, it is a *duty* which the landlord owes to the community at large, to grant his requeſt. But it is, at the ſame time, a duty which he owes to himſelf and his ſucceſſor, to oblige him to lay down an equivalent of arable land to graſs.

Not, however, a piece which has been exhauſted and rendered foul by a ſucceſſion of corn crops; but one which is in heart, and has

has been duly cleaned by a *whole year's fallow*. Not, however, by ſowing it with foul ſeeds, or an improper aſſortment; but (where due confidence cannot be placed in the tenant) with *clean ſeeds* furniſhed by the landlord at the tenant's expence.

The after-management calls equally aloud for the landlord's attention. If he voluntarily ſuffer it to be eaten with ſheep, or to be poached with other ſtock, the firſt winter; if he ſuffer the tender bottom graſſes to be ſmothered in their infant ſtate by the taller herbage running up for hay, or the ſoil to be exhauſted by carrying off a crop during the firſt three years; or if he permit it, under ordinary circumſtances, to be afterwards mown (except ſweeping off the weeds and broken graſs after Midſummer) oftener than every ſecond year;—he is doing injuſtice to himſelf and the community.

It muſt be underſtood, however, that the management here recommended is applicable only to *perennial* lays of twenty, fifty, or a greater number of years: not to *temporary* leys of one, two, or even five or ſix years. In this caſe, herbage becomes an ARABLE CROP,

CROP, and calls for no other attention than that which the ordinary management of an eſtate requires.

SAINTFOIN LEY. This is a perennial ley; in the making of which both landlord and tenant are generally intereſted.

The Diſtrict under ſurvey is ſingularly favourable to the ſtudy of the culture of ſaintfoin. In ſome parts of it, it is cultivated with great profit. In others its culture has been repeatedly attempted without ſucceſs.

The fineſt ſaintfoin I have ſeen grows in the immediate neighbourhood of MALTON. Three tons of hay an acre are ſaid to have been cut. I have ſeen crops, which, to appearance, would not afford leſs.

The *ſoil* a dry calcareous loam, from ten to twenty inches deep. The *ſubſoil* a marly rubble, from two to three feet deep; lying on an unfathomed rock of ſoft limeſtone. (See Art. MANURE.)

One hundred grains of the cultivated *ſurface ſoil* of "Peaſy Hill" affords twenty-five grains of calcareous matter.

One hundred grains of the earthy part of the *ſubſoil*; among which the plants of ſaint-

foin, in all probability, principally feed; contain fifty-nine grains of calcareous earth *.

The analyſis of the *rock* appears in Vol. I. page 336.

About BROMPTON, in the north-eaſt quarter of the Vale, good ſaintfoin is grown; but, I believe, in no way comparable with that of Malton.

The *ſoil*, a lightiſh loam; pretty turnep and barley land; varying in depth.

The *ſubſoil*, a calcareous loam; mixt with limeſtone or with redſtone gravel; and lying on a limeſtone, or on a redſtone rock. In either caſe, the land is productive

* It has been conceived that ſaintfoin feeds on the ſtones themſelves; not on the ſoil which is mixt among them, or which covers them; and this has ſerved to account for the ſuperiority of the ſaintfoin of Malton. But it ſeems much better adapted to the nature of plants to feed among ſoil, than in ſtones; eſpecially when the ſoil is of a nature ſimilar to that of the ſtones which mix among it. The lower part of the ſubſoil, which forms the upper part of the rock, is compoſed of ſmall ſtones mixed with an efflorescent mould, formed in the interſtices of the ſtones, which mould is *almoſt wholly calcareous*; ſo that the plants in this caſe have a ſufficiency of calcareous matter to paſture among without feeding upon the ſtones; which, though *ſoft*, cannot in this caſe be ſaid to be *porous*.

of

of ſaintfoin; in proportion, it is ſaid, to the depth of the ſoil; that is, the depth between the ſurface of the ſoil and the rock; laſting twenty years, more or leſs, according to the depth of the land.

One hundred grains of the *natural ſoil* (taken from the ſide of the lane between Brompton and Sawdon) yields three grains of calcareous matter.

One hundred grains of the *ſubſoil* of an adjoining incloſure, taken from the top of a looſe mixt-ſtone rock, at about eighteen inches deep, affords fourteen grains of calcareous earth.

The *limeſtone* is of a nature between that of Malton and that of Pickering (See Art. MANURE), namely, a granate of a middle quality as to hardneſs.

The *redſtone* is of a ſingular nature; being intermixed with calcareous granules, exactly ſimilar to thoſe of the ſofteſt of the Malton limeſtone. One hundred grains of this *redſtone*, collected among the *ſoil* above analized, yields thirteen grains of calcareous matter. The ſtone in this caſe porous; ſufficiently

open for the fibrils of plants to insinuate themselves.

In the neighbourhood of PICKERING saintfoin has been repeatedly tried; but, I believe, without one instance of tolerable success. The plants, I understand, rose very well from the seed; but never got up to a crop; and in a short time disappeared.

On examining a piece of limestone land which was sown with saintfoin, by my father, some fifty or sixty years ago, I find, in one particular part of it, a few plants still surviving.

To ascertain the nature of the pasturage which could give such unusual longevity to these plants (supposing them to be remains of the originally cultivated roots), I dug down by the side of two plants which grew within a few inches of each other: one of them remarkably healthy, though not luxuriant: the other, a declining plant; half of its top decayed.

The roots struck downward, perpendicularly, and parallel to each other; throwing out a few slender side rootlets.

Near

Near the ſurface they were accompanied with the roots of the burnet, and of the burnet-roſe; neither of which reached more than two feet deep.

At the depth of three feet the root of the decaying plant had rotted off; having nothing but the fibrils above left to ſupport it.

At four feet the vigorous plant reached the top of the rock; or rather, the looſe ſtones which lie upon the rock.

The fields of paſture of this plant were evident. The root was ſimply a thong, reaching from top to bottom; tapering from the ſize of a reed to that of a crow-quill. The fibrils on the ſide were merely hairlike; except at about two feet deep, where ſome threadlike rootlets were thrown out into a thin layer of ſomewhat paliſh-coloured clay; and except at about three feet and a half deep a ſimilar ramification had been made in a ſimilar but paler-coloured earth. At four feet a general ramification had taken place; the main root there ſeparating into large branches; ſtriking nearly horizontally; not upon the top of a hard impenetrable rock (though upon a ſtone of about ſix inches

over) but in a ſtratum of ſtill paler clay; ſome three or four inches thick: a proof that it had here met with a ſoil ſuitable to its nature; only one of its rootlets (not thicker than a ſtem of rye-graſs) having attempted to go lower.

In teſting the ſeveral ſtrata, I find that the three ſeams of clay, alone, diſcover ſymptoms of calcareoſity. Neither the top-ſoil; nor any of the intervening ſtrata, appear to contain any thing of a calcareous nature; except ſome fragments of hard limeſtone which mix more or leſs with the whole.

One hundred grains of the uppermoſt ſeam of clay yield ſeven grains and a half of calcareous matter: one hundred of the middlemoſt, twenty-three and a half grains: one hundred of the loweſt ſtratum, the main field of paſturage, twenty-nine grains.

General Observations. From the ſum of this evidence, and from every part of it, it appears, demonſtrably, that SAINTFOIN delights in CALCAREOUS EARTH. And we may almoſt infer, with equal certainty, that it will not *flouriſh* in a ſituation where both the ſoil and the ſubſtrata are deſtitute of calcareoſity.

In

In another part of the field laſt under notice, the rock riſes to within ten inches of the ſurface; terminating in flat *clean* ſtones, without any admixture of mould or efflorescent matter; and the ſoil perfectly uncalcareous. Here not a leaf of ſaintfoin is to be ſeen. The plants, in all probability, did not ſurvive the firſt year.

Much of the limeſtone land above Pickering is of a ſimilar nature: this accounts for the miſcarriages which have taken place.

Nevertheleſs, the tops of ſome of the limeſtone quarries (as the Caſtle Bank) terminate in looſe ſtones mixt with grey, efflorescent mould, and have fiſſures containing efflorescent matter, which, I find, is purely calcareous. Among theſe ſaintfoin no doubt would flouriſh. There may be conſiderable patches of this land; and they appear to me to be well worth ſearching for. To throw away ſeed, and perhaps two or three years crops, merely on ſuppoſition, is highly imprudent. But a few hours, or a few days, expended in the ſearch of a proper ſoil, might be time well employed.

The great ADVANTAGE OF SAINTFOIN, and that which diſtinguiſhes it in a ſtriking manner from *all other crops*, is that of its feeding principally *below the field of ordinary vegetation:* bringing up to the ſurface vegetable matter, which, without it, would for ever have lain uſeleſs to agriculture; and enriching the cultivator with treaſures which, without its aſſiſtance, might as well have been ſituated at the earth's center *. While he is annually reaping a crop of the moſt nutritious herbage agriculture is at preſent acquainted with, his ſoil, ſo far from being exhauſted, is in all probability gathering ſtrength to enable it to throw out, in future, a ſucceſſion of *arable crops:* beſides the additional advantage ariſing from the quantity of *manure* which he has been extracting from the bowels of the earth, by twenty or thirty crops of ſaintfoin.

NATURAL

* On the Malton ſide of the Vale, *it is ſaid*, the roots of ſaintfoin have been traced to the depth of fourteen feet. I have ſeen roots, which near the ſurface have been nearly as thick as an ordinary walking-cane.

12.

NATURAL GRASSES.

IN A DISTRICT where graſsland abounds; and where the ſoil varies from the coldeſt clay to the moſt fertile loam; and from this to the moſt barren ſand in the bleakeſt ſituation; the SPECIES OF GRASSLAND muſt be in ſome meaſure indefinite.

But in the GRASSLAND MANAGEMENT, the *intrinſic quality* of the SOIL is leſs attended to than its *ſituation*, with reſpect to *dryneſs* and *moiſture*—*warmth* and *coolneſs*.

In *this* quarter of the Vale, three SPECIES of graſsland are ſufficiently diſcriminable to merit ſeparate deſcriptions: namely,

1. Low-land Graſs;
2. Middle-land Graſs;
3. Up-land Graſs.

I. LOW-LAND GRASS. This is provincially called INGLAND, or INGS,—a term ſynonimous

synonimous with MEADOW, as used in some Districts; or CAR, which is synonimous with MARSH or FEN, and with the *meadow* of Norfolk.

While the Vale lay in its open state, the INGS were the only *mowing* lands it contained. In ordinary situations, all the land which lay out of the water's way was converted to *arable* or common-field land; or to common *pasture* grounds.

The Ings are invariably SITUATED low; by the sides of rivers or rivulets; generally lying flat, and subject to be overflowed in times of floods.

The SOIL of the Ingland is mostly a firm tenacious clay, on a cold retentive subsoil. In some places the clay is covered with a stratum of black vegetable mould: generated, probably, by the overflowing of springs, while the land lay in a state of nature, before common-shores and ditches were opened.

The HERBAGE of the LOWLANDS OF PICKERING consists chiefly of the following plants; which I have *endeavoured* to place according to their frequency in the *open Ings*, which have in all probability been *mown*, without

without intermiſſion, during the laſt thouſand years.

Many of the plants in the lower part of the liſt may not grow in theſe old-mown grounds; but are common on the ſame ſoil, and in a ſimilar ſituation, where the ground is *incloſed*, and may have been *paſtured*, and improved by *draining*, &c. but has *never been plowed*.

Provincial.	*Linnean.*	*Engliſh.*
Pig-leaves,	*—ouopordon acanthium*,	—cotton thiſtle.
Blue-caps,	*—ſcabioſa ſucciſa*,	—meadow ſcabious.
	ſanguiſorba officinalis,	—meadow burnet.
	juncus articulatus,	—jointed ruſh.
Clock-ſeaves,	*—ſchænus nigricans*,	—black-headed bog-ruſh.
	cardamine pratenſis,	—common ladies-ſmock.
	betonica officinalis *,	—betony.

Henpenny,

* Betony. This is a common article of herbage in the graſslands of this Diſtrict; abounding in almoſt every ſoil, and in every ſituation, from the marſh to the mountain. The term *Wood* Betony is ill applied to it; at leaſt in this diviſion of the Iſland.

Provincial.	*Linnean.*	*Engliſh.*
Henpenny,	*rhinanthus criſta-galli*,	yellow rattle.
	valeriana dioica,	marſh valerian.
	anemone nemoroſa,	wood anemone!
	juncus campeſtris,	graſs-ruſh.
Crakefeet,	*orches*,	orchiſes.
Segs,	*carices*,	ſedges.
Hay-ſeeds,	*holcus lanatus*,	meadow ſoft-graſs.
	anthoxanthum odoratum,	vernal.
	poa trivialis,	common poe.
	agroſtis canina,	brown bent graſs.
	briza media,	trembling-graſs.
	feſtuca duriuſcula,	hard feſcue-graſs.
	aira cærulea,	purple air-graſs.
	phleum nodoſum,	bulbous cat's-tail graſs.
	orobus tuberoſus,	bulbous pea.
	lotus corniculatus,	birdsfoot trefoil.
	hypochæris radicata,	long-rooted hawkweed.
	ſerratula tinctoria,	dyer's ſaw-wort.
	achillea ptarmica,	gooſe-tongue.
	peucedanum ſilaus,	meadow ſaxifrage.
	vicia cracca,	blue-tufted vetch.
	polygala vulgaris,	milkwort.

pedicularis

Provincial. *Linnean.* *English.*

pedicularis paluſtris,—marſh louſe-wort.

ſpiræa ulmaria,—meadowſweet.

lythrum ſalicaria,—ſpiked willowherb.

arundo calamagroſtis,—hedge reed.

carduus paluſtris,—marſh thiſtle.

lychnis flos-cuculi,—meadow campion.

Seaves,—*juncus effuſus*,—common ruſh.

Reſhes,—*juncus inflexus*,—wire ruſh.

cineraria paluſtris,—marſh ſheabane.

Horſeknobs,—*centaurea jacea*,—meadow knobweed.

achillea millefolium,—milfoil.

Parnaſſia paluſtris,—graſs of Parnaſſus.

ceraſtium vulgatum,—common mouſe-ear.

potentilla anſerina,—ſilverweed.

avena flaveſcens,—yellow oat-graſs.

lolium perenne,—ray-graſs.

Windleſtraws,—*cynoſurus criſtata*,—creſted dog's-tail.

feſtuca elatior,—tall feſcue.

agroſtis alba,—marſh bent-graſs.

alopecurus geniculatus,—flote foxtail.

feſtuca fluitans,—flote feſcue.

Bulls

Provincial.	*Linnean.*	*Engliſh.*
Bulls foreheads,	*aira cæſpetoſa*,	turfy air-graſs.
	lathyrus pratenſis,	meadow vetchling.
	trifolium pratenſe,	meadow trefoil.
	lotus corniculatus,	birdsfoot trefoil.
	ranunculus acris,	common crowfoot.
	ranunculus repens,	creeping crowfoot.
Sourdocken,	*rumex acetoſa*,	common ſorrel.
	angelica ſylveſtris,	wild angelica.
	comarum paluſtre	marſh cinquefoil.
	chryſanthemum leucanth.	ox-eye daiſey.
	hypericum quadrangulum,	St. Peter's wort.
	prunella vulgaris,	ſelf-heal.
Woodweſh,	*geniſta tinctoria*,	dyer's broom.
	ſalix,	dwarf bitter willow.
	epilobium parviflorum,	ſmall-flowered willow-herb.
	eriophorum vaginatum,	cotton-ruſh.
	ſpergula nodoſa,	marſh ſpurrey.
Bog violet,	*pinguicula vulgaris*,	bog violet.
	hydrocotele vulgaris,	penny-wort.
	lyſimachia nummularia,	money-wort.
	menthæ,	mints.
	polyganum hydropiper,	ſmartweed.

ſium

Provincial.	*Linnean.*	*Engliſh.*
	ſium nodiflorum,	creeping water-parſnep.
	caltha paluſtris,	marſh-marigold.
	iris pſeud-acorus,	yellow flag.
Threefold,	*menyanthes trifoliata,*	bog-bean.
	equiſetum paluſtre,	marſh horſetail.
	galium paluſtre,	white bedſtraw.
	veronica beccabunga,	brook-lime.
	ſiſymbrium naſturtium,	water-creſs.

The PRODUCE of this ſpecies of old graſs-land is much below par. The *quality* may be judged of by the herbage it bears; and the *quantity*, even on the incloſed parts, is not great. The parts which yet remain as open common meadow, are ſtill leſs productive. The ſurface in many places is more than half of it occupied by the leaves of the COTTON-THISTLE; and in others, entire patches are covered with the BOG-RUSH. The medial produce about half a load of hay (if it merits the name) an acre. The rent five to eight ſhillings.

GENERAL OBSERVATIONS. Nevertheleſs, it appears demonſtrably, from the patches of corn which are intermixed with this lowland graſs,

graſs, that its preſent unproductiveneſs is not ſo much owing to the nature of the *ſoil* or the *ſituations*, as to the *age* and the preſent *quality* of the HERBAGE.

A ſtronger inſtance need not be produced of the great impropriety, *in ſome caſes*, of obſtinately withholding permiſſion to break up old graſsland.

Who, but a mere botaniſt, can ſee without diſguſt his eſtate occupied by ſuch a tribe of *weeds* as are here enumerated? eſpecially when the means of extirpation are ſo eaſy and ſo profitable. All that is requiſite to render the land of double its preſent value, is to annihilate the preſent ſward, and raiſe up a freſh one in its place: in doing which, if properly done, a courſe of corn-crops may be profitably taken.

But neither the ſoil nor the ſituation of lands of this nature fit them for a *continuance* of *arable crops*. They ought to be uſed as a *means* only of purging the ſoil from its former impurities, and rendering it fit for the reception and nouriſhment of herbage; *every blade and leaf of which is nutritive*.

In

In the inſtance under notice, the renovation of the ſward is now rendered eaſily practicable. The Commiſſioners of Incloſure for this townſhip, with a degree of judgement and ſpirit which do them the greateſt credit, and for which the townſhip will for ages be indebted to them, have ſunk a common-ſhore through the center of theſe lowlands, every acre of which is now plowable; conſequently every owner may now chooſe whether he will continue a ſward of paluſtrean weeds, equally unproductive and innutritious to ſtock; or whether he will convert it into nouriſhment for a courſe of corn-crops, and replace it with a ſward of graſſes and legumes equally productive and nutritious.

How many thouſand acres of land in theſe kingdoms now lie, or might eaſily be placed, in a ſimilar predicament.

II. MIDDLE-LAND GRASS. This conſiſts of the prime part of the common-field land, laid down to graſs in the *natural* way, which has been mentioned.

The SITUATION *cool*, but in general *dry* enough to permit the ſoil to bear ſtock in winter.

The SOIL a rich ſandy loam: the cooler parts deep, and mixed with a few pebbles; the higher parts ſhallower, with a mixture of redſtones: equally productive of graſs and corn.

The HERBAGE conſiſts of the following plants. The laſt twelve ſpecies grow principally near the hedges, or toward homeſtalls; but are ſometimes found in the areas of fields.

Provincial. *Linnean.* *Engliſh.*

Windleſtraws — *cynoſurus criſtata* — creſted dogstail.

dactylis glomerata—orchard graſs.

agroſtis canina—brown bent-graſs.

anthoxanthum odoratum—vernal.

White graſs—*holcus lanatus*—meadow ſoft-graſs.

briza media—trembling graſs.

avena flaveſcens—yellow oat-graſs.

Rye graſs—*lolium perenne*—raygraſs.

poa trivialis—common poe.

poa annua—dwarf poe.

poa pratenſis—meadow poe.

alopecurus pratenſis—meadow foxtail.

feſtuca

Provincial. *Linnean.* *Engliſh.*

feſtuca elatior—tall feſcue.

feſtuca duriuſcula—hard feſcue.

bromus mollis—ſoft brome-graſs.

avena elatior—tall oat-graſs.

avena pubeſcens—rough oat-graſs.

agroſtis capillaris—fine bent-graſs.

hordeum murinum—common barley-graſs.

juncus campeſtris—graſs ruſh.

Ribgraſs—*plantago lanceolatus*—narrow plantain.

Red clover—*trifolium pratenſe*—meadow trefoil.

White clover — *trifolium repens* — creeping trefoil.

Trefoil—*trifolium procumbens* — procumbent trefoil.

lotus corniculatus—birdsfoot trefoil.

lathyrus pratenſis—meadow vetchling.

Fitches—*vicia ſativa*—meadow vetch.

ranunculus acris—common crowfoot.

ranunculus repens—creeping crowfoot.

ranunculus bulboſus—bulbous crowfoot,

leontodon taraxacum—common dandelion.

leontodon hiſpidum—rough dandelion.

hypochæris radicata—long-rooted hawkweed.

Provincial. *Linnean.* *Engliſh.*

Henpenny — *rhinanthus criſta galli* — yellow rattle.

betonica officinalis—betony.

ceraſtium vulgatum—common mouſe-ear.

valentia cruciata—croſswort.

prunella vulgaris—ſelf heal.

Birdseye — *veronica chamædrys* — germander ſpeedwell.

ranunculus ficaria—pilewort.

Cowſtriplings—*primula veris*—cowſlip.

Bairnworts—*bellis perennis*—daiſey.

Cuſhia—*heracleum ſphondylium*—cowparſnep.

Horſeknobs—*centaurea jacea*—meadow knobweed.

Seggrums—*ſenecio jacobæa*—common ragwort.

achillea millefolium—milfoil.

Sourdocken—*rumex acetoſa*—common ſorrel.

campanula rotundifolia—bluebells.

plantago major—broad plantain.

vicia cracca—blue-tufted vetch.

vicia ſepium—buſh vetch.

ervum hirſutum—two-ſeeded tare.

tragopogon pratenſe—yellow goatsbeard.

agrimonia eupatoria—agrimony.

geranium

Provincial. *Linnean.* *Engliſh.*

geranium pratenſe—crowfoot cranesbill.

Mauls—*malva ſylveſtris*—common mallow.

malva rotundifolia—round-leaved mallow.

Cicely—*chærophyllum ſylveſtre*—orchard weed.

Dockens—*rumex criſpus*—curled dock.

rumex obtuſifolius—broad-leaved dock.

urtica dioica—common nettle.

The PRODUCE is ſuch as may be expected from the *herbage*, the *ſoil*, and the *ſituation*. An acre of ſome of the lands lying immediately round the town of Pickering, will afford *paſturage* for a cow from Mayday to Michaelmas; not by being forced with manure, but in its intrinſic nature. In general, three acres are allowed to two cows; but they are of uncommon ſize, nearly equal to three middle-ſized cows.

The produce of *hay* is from one to two tons an acre in a common year. The quality of the hay, if well made, is very fine; well-affected by every kind of ſtock; equally fit for cows and horſes.

The RENT thirty ſhillings to three pounds an acre. The ſummer-paſturage of a cow forty to fifty ſhillings.

III. Up-land grass. In the unincloſed ſtate this land was partly in arable field, partly in upland paſture for cattle and ſheep.

The situation hilly, riſing ſomewhat abruptly above the middle-land. The ſubſtructure a limeſtone rock, riſing in ſome places up to the ſoil; in others a ſeam of redſtone intervenes.

The soil a loam, of different depths, mixed with redſtone, or with limeſtone rubble. Some parts of this land, where the ſoil is deep and the redſtone ſtratum two or three feet thick, may rank with the firſt *corn-land* in theſe kingdoms.

The herbage which prevails on the old ſward of theſe uplands may be ſeen in the following liſt:

Provincial.	*Linnean.*	*Engliſh.*
	leontodon hiſpidum	rough dandelion.
	plantago media	middle plantain.
	hypochæris radicata	long-rooted hawk-weed.
	leontodon taraxacum	common dandelion.
Henpenny	*rhinanthus criſta-galli*	yellow rattle.
	chryſanthemum leucanthemum	ox-eye daiſey.

Moun-

Provincial. *Linnean.* *Engliſh.*

Mountain flax—*linum catharticum*—purging flax.

alchemilla vulgaris—ladies mantle.

polygala vulgaris—milkwort.

feſtuca duriuſcula—hard feſcue.

anthoxanthum odoratum—vernal.

White graſs—*bolcus lanatus*—meadow ſoft-graſs.

avena pubeſcens—rough oat-graſs.

avena flaveſcens—yellow oat-graſs.

briza media—trembling graſs.

agroſtis canina—brown bent-graſs.

dactylis glomerata—orchard graſs.

poa trivialis—common poe.

Rye-graſs—*lolium perenne*—raygraſs.

Windleſtraws—*cynoſurus criſtatus*—creſted dogs-tail.

poa pratenſis—meadow poe.

phleum nodoſum—bulbous catstail-graſs.

avena elatior—tall oat-graſs.

feſtuca ovina—ſheep's feſcue.

juncus campeſtris—graſs ruſh.

carex ſaxatilis?—upland ſedge.

plantago lanceolatus—narrow plantain.

Red-clover—*trifolium pratenſe*—meadow treſoil.

trifolium alpeſtre—alpine treſoil.

Provincial. *Linnean.* *Engliſh.*

White clover—*trifolium repens*—creeping trefoil.

Trefoil—*trifolium agrarium*—hop trefoil.

lotus corniculatus—birdsfoot trefoil.

lathyrus pratenſis—meadow vetchling.

orobus tuberoſus—bulbous pea.

anthyllis vulneraria—ladiesfinger.

galium verum—yellow bedſtraw.

campanula rotundifolia—bellflower.

veronica chamædrys—germander ſpeedwell.

euphraſia odontites—red eyebright.

euphraſia officinalis—common eyebright.

valantia cruciata—croſſwort.

ceraſtium vulgatum—common mouſe-ear.

betonica officinalis—betony.

prunella vulgaris—ſelf heal.

Cowſtriplings—*primula veris*—cowſlip.

ranunculus ficaria—pilewort.

Dog-daiſies—*bellis perennis*—daiſey.

draba verna—whitlow-wort.

thymus ſerpyllum—wild thyme.

potentilla reptans—creeping cinquefoil.

Horſeknobs—*centaurea jacea*—meadow knobweed.

ranun-

Provincial.	*Linnean.*	*Engliſh.*
	ranunculus acris	common crowfoot.
	ranunculus repens	creeping crowfoot.
	ſcabioſa arvenſis	field ſcabious.
	ſcabioſa columbaria	mountain ſcabious.
Bluecaps	*ſcabioſa ſucciſa*	meadow ſcabious.
Yernuts	*bunium bulbocaſtanum*	earthnut.
	achillea millefolium	milfoil.
Seggrums	*ſenecio jacobæa*	ragwort.
	heracleum ſphondylium	cowparſnep.
	orchis maſcula	male orchis.
	orchis morio	fool's orchis.
	orchis uſtulata	upland orchis.
	poterium ſanguiſorba	upland burnet.
	origanum vulgare	wild marjoram.
	ſpiræa filipendula	dropwort.
	agrimonia eupatoria	agrimony.
	valeriana officinalis	medical valerian.
	marrubium vulgare	horehound.
	ſanicula europæa	ſanicle.
	gentiana centaurium	centaury gentian.
	reſeda luteola	weld.
	crepis tectorum	ſmooth crepis.
	ſtellaria graminea	meadow ſtichwort.
	vicia cracca	blue-tufted vetch.
	ervum hirſutum	two-ſeeded tare.

gera-

Provincial. *Linnean.* *Engliſh.*

geranium robertianum—ſtinking cranesbill.

geranium diſſectum—jagged cranesbill.

geranium cicutarium — hemlock-leaved cranesbill.

ſherardia arvenſis—field ſherard.

hieraceum pilocella — mouſe-ear hawkweed.

aphanes arvenſis—parſleypert.

Brakens—*pteris aquilina*—brakes.

Bur-thiſtle—*carduus lanceolatus*—ſpear thiſtle.

carduus nutans—nodding thiſtle.

carduus eriophorus—woolly-headed thiſtle.

ſerratula arvenſis—common thiſtle.

Red thiſtle—*carduus paluſtris*—marſh thiſtle.

carlina vulgaris—carline thiſtle.

Ruſtburn—*ononis arvenſis*—reſtharrow.

Cat-whin—*roſa ſpinoſiſſima*—burnet roſe.

The PRODUCE, in a dry year, little or nothing. On a par of years, half a ton of *hay* an acre. The ordinary allowance for a ſummer *paſturage* of a cow, two or three acres.

The RENT ten to thirty ſhillings.

Land bearing this deſcription is entirely unfit for *perennial ley*. Corn-crops intermixed with

with TEMPORARY LEY are much more ſuitable to its nature.

The MANAGEMENT OF GRASSLAND in this country now requires to be delineated.

The OBJECTS are *hay* and *paſturage*; each of which will require to be ſeparately conſidered. But there are ſome GENERAL MATTERS which are common to them both, and demand a previous conſideration. Theſe are,

1. Draining,
2. Clearing,
3. Dreſſing.
4. Weeding,
5. Manuring.

1, 2. DRAINING, CLEARING. Theſe two operations have been already ſpoken of ſufficiently under the general management of ARABLE LAND, excepting ſo far as relates to *clearing away ant-hills.*

Here, as in moſt places, this operation is too much neglected. When practiſed, the hills are either taken off with a paring-ſpade, or perhaps a plow, level with the ſurrounding ſward, and carted into hollows, &c. ſowing the hillſteads with hay-ſeeds; or, in one inſtance, I ſaw the cap of the hill firſt taken off thin, and when the body of the hill was removed, the cap was laid upon the hillſtead.

But

But this is ineligible. No implement can come upon the ſurface to dreſs it; and the caps are liable to be miſplaced by cattle and other ſtock.

The practice of GELDING * has *lately* been introduced. The greateſt nicety of the art, I find, lies in clearing away the ſkirts of the core effectually; ſo that when the flaps are returned, a rim, riſing above the ſurrounding ſurface, be not left for the moulding-ſledge or other implement to lay hold of.

If this operation be performed in *autumn*, the froſts and rains of winter will temper the cores, and in the firſt dry weather of ſpring the moulding-ſledge will readily reduce them, and lodge them at the roots of the graſs.

If the operation be imperfectly done, or the lumps of core remain ſtubborn, a heavy roller ſhould be run over the ſurface before the moulding-ſledge be uſed.

No man who has attended to the quality of the *herbage of ant-hills* needs any argument to convince him of the propriety of beſtowing a little attention on the moſt eligible means of extirpation.

3. DRES-

* See NORF. ECON. Vol. II. p. 85.

3. DRESSING MEADOWS. The Vale husbandmen are peculiarly assiduous in this department of the management of grafsland, which, in the spring of the year, engages much of their attention. The dung and molehills are generally spread repeatedly, and the stones and wood assiduously gathered off. The ground intended for hay is more particularly attended to; but pasture-grounds are paid their share of attention.

"Moulding," that is spreading dung and molehills, is either done wholly by hand with a "moulding-rake;" namely, a short flat-headed rake with four flat teeth (a tool not uncommon in other Districts); or by the means of a "moulding-sledge" (see IMPLEMENTS), an implement introduced into this country some twenty or thirty years ago.

The first moulding is given the first dry days of spring; generally about Candlemas. Old mole-hills are found to get heavy and firm by lying; and if horse-dung be not broken while moist, it is difficult to be got to pieces *.

The

* I have met with one instance of moulding *pasture grounds* at *Michaelmas*, (when stock is here usually transferred

The soil must become firm before the sledge can be used with propriety. After the surface has been polished by this, it is finally looked over, with the rake; especially round the borders, where the sledge may have left it unfinished.

Hand-moulding is done entirely by women. Wages 6d. a day.

This may be a proper place to mention an opinion which I have met with in this District respecting MOLES.

A man whose examinations are seldom superficial, is clearly of opinion, that moles are useful to the farmer. And under this idea he has not had a mole killed upon his farm during the last twenty years! He believes them to be useful in draining the soil; in communicating air to the roots of plants; in raising

ferred from pasture grounds to after-grass,) a practice which ought to be universally adopted. The surface is then generally open enough to admit the dung which is spread upon it; whereas, in spring, being spread over a surface saturated with water, it is probable that much of it is washed away with heavy rains, or dissipated by frosts. Moulding in early autumn is similar in its effects to the practice of manuring grassland at that season.

raiſing freſh mould upon graſsland; and in *killing worms*; which, he conceives, feed upon the roots of graſs and corn.

That moles are uſeful to *cold ſtrong-textured* land, and to *graſsland* in general, is probably a fact; and this may account for the opinion under notice; which was formed on ſoil of that deſcription; or on graſsland of a more loamy nature.

But admitting that moles are uſeful upon cold ſtrong graſsland, it does not follow that they likewiſe are uſeful on *light, thin-ſoiled, arable land.* Their miſchiefs, here, are too obvious to be over-looked.

With reſpect to WORMS, too, moles are probably miſchievous. No evidence, I apprehend, has ever been produced of their feeding on the roots of vegetables. I ſpeak of the common earth-worm; not of the grubs of beetles, &c. They are ſaid to draw leaves and other vegetable ſubſtances into the ground; but to what end is only conjectured. It may be in purſuance of the wiſeſt dictates, and for the beſt of purpoſes.

I mention this ſubject, becauſe I believe it is *new* to the public; and I mention it in this

curſory

curſory way, becauſe I have not *yet* had opportunity of ſtudying it maturely. It appears to me, however, a ſubject of the firſt importance in Rural Economics: for meanly as we are habituated to think of this lowly drudge, the proſperity of the vegetable and animal creation may hinge upon it. Its natural hiſtory appears to me a ſubject of ſufficient importance to engage the attention of any man; let his abilities and pretenſions be what they may: and it is a ſubject which any man of leiſure may apply himſelf to without difficulty.

4. WEEDING GRASSLAND. This department of the graſsland management is too little attended to. Beds of the *common thiſtle* are too frequently ſuffered to ſeed in paſtures, to the great nuiſance of the neighbourhood; while both meadows and paſtures are not unfrequently diſgraced with the *dock*; a weed which requires much leſs induſtry to extirpate it.

I met with an inſtance of a meadow, foul in the extreme with *knobweed*, cured by paſturing it repeatedly with *ſheep* in the ſpring.

Ragwort

Ragwort I have known killed in the ſame manner.

I likewiſe met with an inſtance, here, of a bed of *docks* being deſtroyed by *ſwine*; or by *mowing*. The fact was, a large patch of docks as thick as they could grow upon the ground were liable to the bite of ſwine (ſome ſpecies of which will feed on them with avidity); and what they left was repeatedly mown off; perhaps twice or thrice in a ſummer, for a ſucceſſion of years. At length they vaniſhed as by a charm; and were ſucceeded by a thick ſward of the finer graſſes.

Perhaps neither the ſwine nor the ſithe could be ſaid with ſtrictneſs to have killed theſe docks; which, it appears to me, evidently, *died of age*. No vegetable is everlaſting. Some are annual, ſome are biennial, others perennial. But the age, or natural life of perennial *herbs* has not perhaps been attended to. We may however take it for granted, without experience, that all plants which propagate their ſpecies by ſeed alone, may be ſubdued by perſevering to prevent their ſeeding. All that we want to know from experience is their ſeveral *ages*; in or-

der that we may calculate the difference between the expence of heading them from time to time, and that of deſtroying them at once by eradication.

5. MANURING GRASSLAND. The dung-cart is ſeldom drawn on to graſsland. The quantity of *dung* which is made in the Diſtrict (ſee FARMYARD MAN.) is ſmall; and is chiefly applied to arable land; while the collecting of *mud*, *roadſtuff*, and other materials, meliorating to graſsland, is ſhamefully neglected.

FODDERING on graſs in winter is chiefly depended upon as an equivalent for its exhauſtion by *hay*; and *paſtured* ground is conſidered as ſtanding in no need of extraneous aſſiſtance.

If a piece of mown ground were to have the *whole* of the crop returned to it in fodder, and in a proper manner, it is probable that ſuch ground might be repeatedly mown without being materially exhauſted. But the foddering ſhould certainly be *general* to the whole piece; beginning on one ſide, and *teathing* it regularly in the Norfolk manner

(ſee

(ſee NORF. ECON. Art. TURNEPS), until the oppoſite ſide be reached: not partially under the hedge, as is generally the caſe here. The hedges are, no doubt, crept to for ſhelter; in windy weather, eſpecially, hay will not lie in an expoſed place: but certainly the hedges ought to be conſidered as a reſource to fly to in ſtormy weather; returning to the area of the field whenever the ſtorm abate.

The GOOD EFFECT of foddering on any graſsland, *which will bear the treading of ſtock in winter*, is evident to common obſervation.

The great danger to land which is inclined to *tenacity*, is that of its being *caught in the drought of ſpring*; before the ſward be relieved by rains or by froſts; which, by tempering the ſurface, is obſerved to releaſe the graſſes from their confinement in the footſteps of ſtock. On ſuch land the foddering ſhould not be continued too late in the ſpring.

On *light-land* graſs many advantages ariſe from this practice. The fodder is laid up, and the manure carried on at a ſmall expence. The contexture of the ſoil is improved, and moſs (the greateſt enemy of land of this de-

ſcription) checked or deſtroyed by the treading of ſtock. There can be no doubt that, in ſome caſes, and under proper management, ſtacking hay in the field, and foddering with it on the land it grew on, may be perfectly eligible. Much depends upon the nature of the land, and much upon whether the given piece of graſs, or the arable land in the ſame occupation, is moſt in want of melioration.

But advantageous as this management may be in ſome caſes to *light land* graſs, a ſtriking inſtance of the inutility of teathing *ſtiff land, in winter*, with ſheep, occurred in this neighbourhood. A piece of low cold retentive (but well-ſheltered) Ingland was foddered upon, during a ſucceſſion of ſevere weather, until its ſurface was black with dung. Great expectations of improvement were formed; but no ſenſible benefit whatever followed.

From this and other inſtances of a ſimilar nature, it is more than probable that *teathing* cloſely-textured land *in winter*, is equally ineligible as *manuring* it in winter; an impropriety which I am fully convinced of from

my

my own practice; and which all countries are *beginning* to be aware of. I am afraid, however, that the principal part of the little manure which is ſet upon graſsland in this Diſtrict, is carried on during the froſts of winter; the worſt time invention can deviſe.

Lime is, in the general idea of the country, rather injurious than beneficial to graſsland. Evidences are produced againſt it; but they are not concluſive: the trials which are ſaid to have been made were on cold retentive ſoils; the leaſt likely, perhaps, to be improved by lime. To corn-crops lime is moſt beneficial on dry warm ſoils; and ſome recent experience here ſhews, that on ſuch ſoils lime is beneficial to graſs.

A quantity of lime having been ſcattered accidentally on ſward, it was obſerved to injure the herbage conſiderably for the firſt three or four years. This of courſe corroborated the opinion of its being injurious to graſs. But in a few years more this incidental patch became much ſuperior to the reſt of the piece it lies in; and has now continued to be ſo for ſome years. The ſoil a middle loam, on a rocky ſubſtratum.

This led to an experiment with a ſmaller quantity; namely, four chaldron an acre; on a piece of declining moſſy ſward, on a burning ſand, in an upland ſituation.

This experiment was made laſt autumn. The preſent ſtate of it is ſtriking (Sept. 1787). The entire countenance of the land is changed: the ſward has acquired a dark-green healthy colour; and the moſs has already moſt of it diſappeared: while the remainder of the piece (the whole eaten with ſheep) is covered with a fleece of moſs intermixed with parched ſtraw-coloured herbage.

Thus far, and as far as one experiment will go, this under notice is deciſively in favour of lime being beneficial to a ſcorching upland ſoil. For reviving the productiveneſs of old ſheep-walks and rabbit-warrens lime may, perhaps, be found a moſt profitable manure.

A remarkable incident occurs this year (1787) near Pickering. Part of the common has been, I believe, time immemorial, in uſe as a whitening-ground—provincially, "bleaching-greens."—The ſoil, drift ſand left by a brook which frequently overflows thoſe greens; the ſubſoil gravel; left in all pro-

proability by the brook in ſhifting its channel from time to time. Nevertheleſs, ſuch was the *ſuperficial appearance* of this valley while it was uſed as a whitening-ground, that the Commiſſioners under the Incloſure valued the land (laſt ſummer a dry ſeaſon) at forty to fifty ſhillings rent an acre. But this year, the bleaching being diſcontinued, it has turned out not worth fifty-pence an acre; notwithſtanding the uncommon power which vegetation has this year every where elſe manifeſted *.

The parts where the webbs have uſually lain, are evident to common obſervation: ſcarcely a blade of graſs has this year ſhewn itſelf upon them. Even the ſedges and other paluſtrean weeds, which attempt to grow, are not able to hide the dead-looking ſand among which they are rooted. The ſoil, naturally weak, is at preſent evidently exhauſted. But query, how has this exhauſtion been effected? By the *lime* which has been uſed in bleaching? Or by the *watering* which it has here-

* A ſtriking evidence this of the caution requiſite to be uſed by *ſtrangers* in eſtimating the value of land.

tofore conſtantly had through the ſummer? Or by the *warmth of the webbs*; which, acting as a gardener's frame, has induced the ſoil to exert itſelf beyond its natural ſtrength? The effect is well aſcertained; but evident and intereſting as it is, it appears to me difficult to be accounted for ſatisfactorily.

Having thus paſſed through the *general* management of graſsland, it will now be proper to particularize,

1. The Management of Meadows.
2. The Management of Paſtures.

I. MEADOWS. All old graſsland which is *mown* is here called "MEADOW;" whether its ſituation be low or high, dry or moiſt. It is merely a term in contradiſtinction to PASTURE, or "ſummer-eaten" ground; which name it may take the enſuing year; it being a pretty common practice to mow and ſummer-eat alternately.

This, however, is far from being a general practice; the ſame lands will be mown, and others will be uſed as cow-paſture, for ſeveral years ſucceſſively. But of the land which is deſcribed above as midland graſs,

an

an alternacy, though not perhaps annual and regular, generally takes place.

In deſcribing the MANAGEMENT OF MEADOWLAND, a fourfold diviſion of the ſubject will be requiſite.

1. Spring Management;
2. Haying;
3. After-graſs;
4. Winter Management.

1. SPRING MANAGEMENT OF MEADOWS. The general practice is to "eat" them until *Old May-day*; when the ſtock is transferred to the paſture-grounds-----and the meadows finally ſhut up for hay.

In this climature the practice is injudicious. It throws hay-time too backward in a common year. And if dry weather ſet in early, the ground, having no covering, is parched with drought, and the crop of *hay*, *perhaps*, thereby leſſened.

In Surrey, and round the metropolis, grounds intended to be mown are ſcrupulouſly freed from ſtock early in the ſpring; not a ſpring ſhoot is cropped. This is the oppoſite extreme; and, if the land will bear ſtock, is alſo improper. Some valuable

ſpring-

ſpring-feed is loſt; the froſts deſtroying that which would be of ſervice to ſtock.

Land may in general be eaten until OLD LADY-DAY or the MIDDLE OF APRIL, without injuring the crop of hay. Early weeds, and the ranker graſſes, are choaked, by which means the better bottom graſſes are ſuffered to riſe, and to ripen with them.

2. HAYING. To give a minutial account of this department of the graſsland management, it will be requiſite to conſider ſeparately the following ſubdiviſions:

1. Mowing;
2. Making;
3. Laying-up;
4. Expenditure.

1. *Mowing.* This is done chiefly by the "day's mowing," which is an inaccurate acre; ſometimes more, but generally leſs than a ſtatute acre; old-incloſed meadows having been reckoned from time immemorial, ſo many "day mowings;" and whether they are in reality a greater or leſs number of acres, they are conſidered as ſo many days' works.

The wages for mowing, one ſhilling to eighteen-pence a-day and board. Little or no mowing is done by the acre. A man

ſeldom

ſeldom mows more than his day-mowing; which, if he be a good hand, he performs in a few hours, in the morning and evening; generally lying by in the middle of the day.

The Yorkſhire mowers labour hard during the ſhort hours they work: their ſithes are of uncommon length, and they take their ſwath of unuſual width; ſeldom leſs than three yards; ſome of them ten or eleven feet wide; and, what is I believe peculiar to them, they invariably "keep ſtroke;" that is, all ſtrike together as one man: a practice which is at leaſt pleaſing to look at.

2. *Making.* All countries, I find, abound in bad haymakers; and ſome are deſtitute of good ones. The country under ſurvey may be ſaid to be above par; and that is as much as can be ſaid of it. Quantities of hay are annually waſted, and ſtill greater quantities unneceſſarily injured, through bad management. It is ſeldom tedded ſufficiently; is frequently expoſed all night abroad in catching weather; and in ſuch weather is too often carried before it be dry.

A ſin-

A ſingular expedient is here practiſed to get it (as it is intended) out of harm's way. This is to put it into "pikes," or ſtacklets of about a load each—before it be fit to be put into ſtack; and, too frequently, before it be fit to be put into large cocks. This is conſidered as a middle ſtage; in which it is to take a partial heat, and become prepared for the ſtack.

If hay be free from water-wet, but yet too full of ſap to be truſted in ſtack, "piking" it may have its uſe. But it is more generally made uſe of as a ſlovenly expedient for getting hay out of hand in a tedious ſeaſon. In this caſe, however, it is moſtly miſchievous. I have ſeen theſe pikes, when opened out to be carried to the ſtack, white with mould, black with rottenneſs, and of every intermediate colour, excepting that which alone is deſirable. But this *good old way* ſeems to be declining.

In the beſt practice of the Diſtrict, the graſs, in fine weather, is tedded after the mowers; or, in ſhowery weather, as ſoon as a fair opportunity offers. In the evening, unleſs due confidence can be placed in the weather,

weather, it is put up into cocklets—provincially, "hipples;"—made in different ways; ſome being ſet up hollow with the foot and the head of the rake; others in the common way with forks. As the hay has advanced in dryneſs, the hipples are increaſed in ſize.

When a fair opportunity offers, and the graſs is perfectly dry, the hipples are "ſundered;" that is, broken out into beds in the uſual manner; turned; and again got up into cocklets, of ſuch ſize as the ſtate of dryneſs requires. When ſufficiently dry, the hay is made into well-ſized cocks; namely, about eight or ten to the load.

When the crop is intended to be ſtacked on the piece it grew on, the firſt-made part generally ſtands in theſe cocks until the whole, or the principal part of the remainder, be ready for the ſtack; which, by this means, is never expoſed abroad in its firſt ſtages: a circumſtance, however, which is too commonly ſuffered by leſs judicious hay-farmers.

3. *Laying up hay.* The moſt prevalent practice is to ſtack it in the field; either for the purpoſe of foddering it on the ground,

or

or to be fetched home in frosty weather, or when wanted. Much, however, is carried to the homestall at hay-time; some to be stacked; others to be housed; a practice which, when room can conveniently be had, seems to be in good estimation. It is at once got out of the way of the weather, and probably into the place in which it will be wanted: the mustiness of housed hay, which is talked of in some places, is not perceived in this.

The practice of STACKING HAY IN THE FIELD adds much to the ease and dispatch of hay-time. If the stack be placed in the center of the ground, a considerable part of the hay may be collected, without the trouble of loading it on to a carriage.

If it be in large cocks, it is sometimes drawn to the stack with one horse, and a cart-rope put under the skirts of the cock on the sides, and above the skirts on the back part; giving the bend of the rope sufficient hold of the hay, to prevent its being drawn from under the cock. The two ends of the rope pass to a pair of hames; being made fast on one side, and kept in its place with a peg on the

the other; the cock arrived at the ſtack, and the peg drawn, the rope is diſengaged.

If the hay be abroad it is rowed in the uſual way, and is ſometimes drawn together with a long pole (ſix or eight feet long), with a rope paſſing from each end of it to the hames; a man ſtanding or preſſing upon the pole, to keep it down to its work, and make it clear the ground as it goes. This however, though ſimple, is a difficult buſineſs. More complex implements of various conſtructions have therefore been contrived for this purpoſe.

Theſe implements are alſo uſed in cocking; and, when the quantity of dry hay is great, and hands ſcarce, it eaſes and expedites the buſineſs very conſiderably. For, in this caſe, the main burden of the hay is drawn together by the team, the rakers having only the bared ground to rake over; following the implement, and drawing the rakings to the part to be cleared by the next ſweep of the implement; beginning on one ſide of the piece, and proceeding in this regular and expeditious manner to the other; leaving the hay

hay in large rows, eaſily to be cocked; dragged to the ſtack; or loaded; as occaſion may require. This expedient, however, is far from being in general practice.

When the ground near the ſtack is clear-ed, and the ſtack has riſen too high to be conveniently forked on to from the ground, the outſkirts of the field are drawn together in carriages.

In the beſt practice of the Diſtrict, the ſtack, if not very large (which field-ſtacks ſeldom are), is never begun upon until a ſufficiency of hay be dry to get it above the eaves the firſt day. If the whole be ready, the middle of the ſtack is rounded up, and the remainder ſet in tall "pikes" by the ſide of it, ready to be laid on the firſt fine day after the ſtem be ſufficiently ſettled. This appears to me to be bringing the buſineſs of laying up hay as near perfection as the nature of it will admit.

Field-ſtacks are, I believe invariably, made round. The favourite form at preſent ſeems to be that of an *egg*; a form, perhaps, of all others the moſt beautiful, but by no means the moſt convenient *.

* In CLEVELAND the oppoſite extreme prevails. The *turnep* is there the archetype. If hay-ſtacks be made

When the hay has done heating, the ſtack is finally topt up, its roof adjuſted and raked, and its top *capt* with thatch; the principal part of the roof being left naked.

In a country where thatching the entire roof is the eſtabliſhed cuſtom, this would appear negligent management. In this country, to beſtow thatch and thatching upon the whole would be deemed a waſteful extravagant cuſtom. It would be difficult to ſay with certainty which is the better practice. Either of them is good, if properly executed.

Field ſtacks are fenced with large hurdles, —provincially, "ſtack-bars"—reſembling the gate-hurdles of ſome Diſtricts, and the cattle-hurdles of others. Being placed in a ring, and united together with pins paſſing through the heads, they form an arch, and become a ſimple and ſufficient fence againſt every kind of ſtock.

4. *Expenditure of hay.* There is no regular *market* for hay in the Diſtrict. It is ſeldom *ſold* but in times of ſcarcity. It is

 moſtly

made *round*, a form between the egg and the turnep is preferable to either extreme; but, in my mind, a *barn* is the beſt model for a hay-ſtack.

moſtly *conſumed* on the premiſes: chiefly perhaps in the houſe, but partly in the field; a practice which has already been ſpoken of.

3. AFTERGRASS. In ſome places cattle are turned into meadows as ſoon as the crop is out of them. This is fouling the ground without any advantage to the cattle, which will not, cannot, eat the *ſtubble* of mown ground.

In this country, the oppoſite extreme of management is too prevalent. AFTERGRASS —provincially, "fog" — is ſcarcely ever broken till *after Michaelmas*; is ſometimes hoarded up till near *Martinmas* before it be turned into. In the latter caſe, half of it, perhaps, is generally waſted. Whether the weather prove wet or froſty, one of which may reaſonably be expected at that time of the year, cattle deſtroy as much long overgrown aftergraſs with their feet as with their mouths. Wherever they tread in wet weather, the graſs is fouled; wherever they ſtep when froſt is on the ground, the graſs they tread on is entirely deſtroyed.

It

It is a matter of ſome aſtoniſhment that no country has yet adopted AN ECONOMICAL EXPENDITURE OF AFTERGRASS. I have met with ſome faint attempts in the practice of individuals in different places; but nothing of a regular confirmed eſtabliſhed practice.

There is one leading principle of management which is eaſy to be obſerved, and by which alone perhaps half the preſent waſte might be avoided. This is the ſelf-evident and ſimple one of never ſuffering cattle to remain at *nights* on aftergraſs, nor to return them in the morning *while froſt remains on the ground.*

In ſtrictneſs, they ought never to be ſuffered *to lie down among it*, but ſhould be removed as ſoon as their appetites are palled. Even this, when the expenditure is on cows, is not difficult. But fatting cattle may perhaps require more indulgence. Theſe, however, might, without injury, be let out in the evening into an adjoining ſtubble or paſture-ground, and be ſuffered to return in the morning, with very little extraordinary attention or trouble. Cows might be folded in a yard, or kept in the houſe, or in the field, as circumſtances might require.

The expenditure of aftergrass in this country is principally on milked cows; some on dry fatting cows, and some on oxen thrown up from work in the spring and finished with aftergrass.

GEN. OBSERV. ON AFTERGRASS. Grass which has been trampled under foot, in the manner described above, necessarily remains in winter an encumbrance to the surface. If the ground be foddered upon, some of it will of course be worked off by cattle; and horses will eat a still greater share of it. Still, however, the sward will be ragged in the spring; a thing which ought to be avoided. In the early part of spring, aftergrass ought to be level; that is, either *entirely bare*, or covered with a *sufficient even bite* of unsoiled aftergrass, or winter-freed pasturage.

Two of the ablest rural economists of these kingdoms (one of them of Lancashire, the other of Leicestershire) make a point of saving autumnal grass for spring-feed; and they are probably right when they assert that it is the most certain, and on the whole the best, spring-feed at present known.

On these principles the right management of aftergrass is evident. The forwardest ought

ought to be broken ſufficiently early to be eaten, without waſte, before winter ſet in; and the lateſt, that is to ſay, the ſhorteſt, ſhould be ſhut up for ſpring-feed. If aftergraſs be too long and groſſy it is apt to lodge, and rot upon the ground in winter. Therefore on rich land it ought to be more or leſs fed before Michaelmas; and then, of a due length, be ſhut up for the winter.

II. PASTURES. The management of paſture-grounds requires to be ſubdivided into

1. Spring Management.
2. Stocking.
3. Summer Management.

1. SPRING MANAGEMENT. In the ordinary practice of the Diſtrict paſtures are ſhut up in winter, or early in the ſpring, and freed from ſtock until *Old Mayday*.

This appears to me to be bad management. At Old Mayday, in a common year, and on an ordinary ſoil, there is a ſufficient bite over *every part of the ſurface*. Cattle of courſe *chooſe the better herbage*. They have no inducement to crop the *weeds* and *coarſer graſſes*, which they ſuffer to run up to *ſeed*,

thereby in the inſtant encumbering the ſurface, and in the conſequence increaſing their ſpecies; and of courſe *leſſening* the proportion of NUTRITIOUS HERBAGE.

Even ſuppoſing the ſward to be perfectly free from weeds and coarſe graſſes, it is bad management to ſuffer ſtock (STORE-STOCK) to be turned upon a full bite. They cannot, if duly ſtocked, keep the whole of it under. Much of it will inevitably run up to ſeed, forming tufts and uneaten patches, which (if not removed with the ſithe) remain during the ſummer as uſeleſs to the grazier, as if they were not included within the limits of his paſtures. They are ſo much *waſte ground*. The quantity of grazing ſurface, or, in other words, the *ſize of the paſture*, is leſſened *in proportion to the quantity of ſtale herbage*.

On the contrary, if ſtock be admitted into paſtures while the *early weeds* are yet in a *tender ſtate*, and before the ſurface be covered with *better herbage*, every weed will be cropped, and every part be *equally eaten*. Even *ruſhes* when they firſt ſhoot are eaten freely by cattle and horſes; eſpecially the latter. The *cowparſnep*, *ragwort*, and other groſs early

early plants are, on their firſt emerſion, devoured greedily by cattle and ſheep.

But changing *weeds into nutriment*, and increaſing the *quantity of paſturing-ſurface*, are not the only advantages ariſing from breaking paſtures early with ſtore-cattle. The cattle themſelves are benefited, by being removed by degrees from dry meat to graſs, and thereby, in all human probability, preſerved from many diſorders which cattle are liable to on their firſt being turned out to graſs in the ſpring.

It will be ſaid, that under this management paſture-grounds require to be ſtocked *thinner* than in the uſual practice. For a few days immediately after Mayday, the paſture will be comparatively *ſhort* (a circumſtance, perhaps, favourable to beaſts when firſt turned out wholly to graſs), but afterwards the advantage will be evidently in favour of early breaking; inaſmuch as the quantity of ſurface is thereby encreaſed. It is therefore demonſtrable, that under this management paſtures may be ſtocked *thicker* than in the common practice.

FATTING CATTLE which are forward in flesh, and are intended to be *finished with grass*, may require a full bite at first turning out. But for COWS, WORKING-OXEN, REARING CATTLE, and lean cattle intended to be *fatted on grass*, a full bite at the first turning out is not requisite.

Another objection which may be made to early grazing is, that of laying the land open to the drought of spring. This, too, is in great measure, when applied to *pasturage*, an ill-grounded apprehension. It is notorious to common observation, that cows milk and cattle in general thrive beyond expectation in *droughty weather*. It is not the *length of grass*, but the *quantity of nourishment* it contains, which makes cattle pay for their pasturage. In dry seasons medicinal waters are strongly impregnated, and fruit exposed to the sun in such seasons, is sweeter and more highly flavoured than it is in a moist season or a shady situation; but the distillers of simple-waters are the best judges of the effects of seasons on herbage.

The richness of vegetable productions appears to be in proportion to the quantity of heat in the imme-

immediate ſphere of their vegetation. Thus the richneſs of fruit is increaſed by the reflection of the wall; and it ſtrikes me that the richneſs of graſs is increaſed by the reflection of the ſoil. Long graſs ſhades the ſoil and deſtroys the reflection. The ſhorter the graſs the ſtronger the reflection, and, conſequently, the richer the herbage.

But the longer the graſs, the ſooner the cattle ſatisfy their hunger, and lie down to reſt. A medium therefore is obſervable. The due length depends upon the nature of the ſtock, the nature of the ſoil, and the nature of the ſeaſon. Rich graſs goes farther than that which is watery and weak. A good grazier looks to the caſe of his cattle, rather than to the length of their paſture.

Theſe obſervations are drawn from my own experience, as well as from the practice of one man in this Diſtrict; who, by early ſtocking, keeps not only his rough paſtures, but even his yards in a great meaſure level and free from encumbrances.

OLD LADYDAY to the MIDDLE of APRIL, according to the progreſs of ſpring, appears

to

to me at present as the best time for *shutting up mowing-grounds* and *opening pastures*.

2. STOCKING PASTURES. The *species* and the *quantity* require to be separately considered.

No settled rules with respect to the *mixture of species* are here observed. It is generally understood that *horses* and *cattle* intermixed will eat grass cleaner than either species will alone; not so much from their separately affecting different grasses, as from the circumstance of both species disliking to feed near their own dung.

Horses, it is true, appear partial to particular patches of sward; but, on close examination, I have never been able to discover any peculiarity in the *soil* or the *herbage* of these barely-eaten spots; which are, I apprehend, eaten to the quick accidentally, and are afterwards kept down through their *peculiar sweetness*, owing to the *peculiar shortness of the herbage*. Hares and rabbits in the neighbourhood of kept covers, keep down patches of barley or other corn in a similar manner, and through similar motives.

Besides this unfair manner of feeding, the HORSE is disliked in pastures, on account of

the

the worthleſſneſs of the dung of horſes at graſs.

This, when the ſuperior value of their dung in the ſtable is conſidered, appears ſomewhat paradoxical. The idea, however, is not confined to this Diſtrict, nor to this Iſland; it prevails, I am well informed, in America, and perhaps more or leſs in every place where huſbandmen obſerve ſuperficially.

The idea has, no doubt, ſome foundation. The dung of horſes dropped on graſs in ſummer ſoon undergoes a change. Its ſubſtance is preſently ſcooped out by inſects; nothing but a porous bundle of undigeſted vegetable matter being left. If inſects not only eat horſe-dung, but fly away with it out of the field, it is in reality loſt to that particular field; but if, what is moſt likely, they drop it again near the place where it was taken up, and at length find a grave for their own bodies among the graſs, the occupier of the land ſuſtains no loſs.

Sheep, I believe, are ſeldom mixed either with cows or fatting-cattle. They eat leſs fair than horſes, which ſtick to particular patches;

patches; while ſheep run over and nibble out the choiceſt morſels of the entire piece. They are generally kept alone, except on commons, and are on *this* ſide of the Vale properly confined to the uplands, the moſt natural paſture of ſheep.

With regard to the aggregate QUANTITY OF STOCK ſuitable to a *given piece of ground*, huſbandmen here, as in other places, differ in their opinions. Extremes are moſtly injudicious. The impropriety of ſtocking too *thin* has already been ſhewn; but laying on ſtock too *thick* is a ſtill greater impropriety. Broken graſs may be mown for hay; but the evils of over-ſtocking are not eaſily repaired; ſtock once checked do not readily regain a thriving habit. I have known (not in this Diſtrict) the entire produce of the land thrown away by over ſtocking: it is an error which novitial farmers too frequently fall into. The middle way ought to be attentively ſought after. Nothing but experience on the given ground can point it out. In obtaining this experience it is always prudent to begin on the ſafe ſide; or, in other words, to underſtock rather than overſtock the firſt year.

3. SUM-

3. SUMMER MANAGEMENT OF PASTURES. In this department of the grafsland management, the Diſtrict under ſurvey is deficient. No *ſhifting* of ſtock: no head ſtock and *followers:* nor *ſweeping* of paſtures with the ſithe. In the ordinary practice of the country, ſtock are turned into paſture-grounds at Mayday, and there remain impounded until Michaelmas; or until harveſt be in, when the head ſtock are transferred to the mowing grounds; the ordinary to the ſtubbles; to partake of the "average:" a provincial term for the eatage of arable land after harveſt; a term probably originating in the ancient common-field management.

I have already intimated, that it is not my intention to make the preſent a didactic work. Nevertheleſs, where I find what appears to me cauſe of cenſure, it may be right to mention what I think would be a means of doing it away.

The grafsland management is no longer a ſubject which is new to me. I have now had a conſiderable ſhare of experience in my own practice, and have alſo had opportunities of obſerving on a large ſcale the practice of others

others in different and distant Districts. I will therefore here give, in as few words as possible, a *sketch* of my present ideas respecting the proper management of SUMMER PASTURES.

Much depends on SITUATION, and much on WATER. There are cases (many of them in this District) in which the stock are through necessity confined during the summer in *one* grass-pound. Cases like these can only be lamented, not remedied. There are others which will admit of only *two* divisions; that is, of *one shift*: a predicament infinitely preferable to the first; but not altogether desirable.

In all cases, where fatting cattle or dairy cows make a part of the stock, and where situation, soil, and water will permit, every suite of grazing-grounds ought, in my idea, to consist of THREE COMPARTMENTS. One for head stock (as cows or fatting cattle), one for followers (as rearing or other lean stock), and the third to be shut up to freshen for the leading stock.

If at the time of shifting the followers, there be *much seedy herbage* left upon the ground,

ground, it ought to remain until they be ſhifted; and to be MOWN AS HAY during the receſs.

But if, at that time, a *few weeds*, and a *little ſeedy herbage* only be left, they ought to be SWEPT down with the ſithe a few days before the removal of the lean ſtock; which will not fail, in this eaſe, to lick up even the ſharpeſt thiſtles, while they are in the ſoft flaccid ſtate which the ſithe in a ſhort time reduces them to.

Finally, I am clearly of opinion, that let the paſture conſiſt of one, two, or more compartments, not a weed ought to *ſeed*, nor a tuft of *ſtale graſs* be ſuffered to ſtand in a paſture-ground; which ought at leaſt once during the ſummer to be LEVELLED WITH THE SITHE; thus, at a ſmall expence, converting WEEDS INTO NUTRIMENT, and WASTE GROUND INTO AFTERGRASS.

HORSES.

13.

HORSES.

YORKSHIRE has long been celebrated for its horſes. Fitzherbert, who wrote two hundred and fifty years ago, mentions his going to Rippon fair to buy colts.

The influence of *climature* on the *conſtitution*, or *changeable* part of the nature of animals, is a matter difficult to be demonſtrated. There are men who deny it.—Nevertheleſs, ſtrong evidences of its exiſtence may be drawn from the animal under conſideration.

No man has yet been able to breed Arabian horſes in England; Engliſh horſes in France or Germany; nor Yorkſhire horſes in any other Diſtrict of England. Some good horſes, no doubt, are bred every year in different parts of the kingdom; but they are few in proportion to the number of bad ones bred in thoſe parts.

In

In Norfolk, the breeding of ſaddle-horſes has been repeatedly attempted without ſucceſs. Yorkſhire ſtallions have been, and ſtill are ſent into Norfolk in the covering-ſeaſon. The *foals* may be handſome, *but they loſe their form as they grow up.*

On the contrary, in Yorkſhire, let the foal when dropt be ever ſo unpromiſing, it will, if any true blood circulate in its veins, acquire faſhion, ſtrength, and activity *with its growth.*

This in my mind accounts fully for the ſuperiority of Yorkſhire-bred horſes; and is a ſtrong evidence that *air*, *water*, *ſoil*, or *herbage*, has an influence on the conſtitution or changeable nature of animals.

The Diſtrict more immediately under ſurvey may, perhaps, be conſidered as the firſt in the county for the breeding of horſes. Nevertheleſs, it cannot even here be called a univerſal practice. Men are led into it by accident or caprice.

It would be difficult to aſcertain the exact number annually bred. The Vale, the Wolds, and Holderneſs, probably employ a hundred ſtallions. One hundred mares are conſidered

as the full complement for one horſe. Some of them, perhaps, do not get fifty. On this calculation, there are from five to ten thouſand horſes bred between the Eaſtern Morelands and the Humber *.

It will now be neceſſary to conſider ſeparately,

1. The breed.
2. The method of breeding.
3. The method of making-up.
4. The markets.
5. The management of worked horſes in this Diſtrict.

I. BREED. Thirty years ago, STRONG SADDLE-HORSES, fit for the road only, were the principal breed of the Vale.

During the laſt twenty years, ſome capital HUNTERS have been bred in it. This change was principally effected by one horſe, JALAP; a full-bred horſe; whoſe pedigree and performances are well known upon the turf.

He

* This calculation, however, is grounded on little more than ſuppoſition. It would be difficult to aſcertain the exact number of ſtallions kept in ſo wide a Diſtrict.

He is ſtill living; and, what is remarkable, laſt ſeaſon, at the age of thirty, covered ſeveral mares. His leap five guineas each, for blood mares; two guineas for "Chapmen's" mares *.

But notwithſtanding the credit which the Vale has juſtly acquired of late by its hunters, the breed is at preſent changing to faſhionable COACH-HORSES; namely, tall, ſtrong, overſized hunters. The breed, therefore, may be ſaid to have increaſed in ſize, rather than to have undergone a change. In 1783, the ſtallion-ſhows exhibited beautiful groups of animals, nimble as the greyhound, and ſpirited as the lion. This year (1787) the ſhows were comparatively flat and ſpiritleſs: a mere parade of troopers.

There may be ſeveral reaſons for the alteration which is taking place in the breed of horſes in the Vale.—The *Jalapian* breed has degenerated; very few of the ſons of this celebrated horſe have been good ſtock-getters. Another reaſon, and perhaps a better,

* He died in December 1787, ſince this article was written.

is the unfitneſs of high-bred hunters for beaſts of burden and draught. Not only brood mares, but growing horſes, are uſed in huſbandry. The operation of plowing with two horſes requires ſtrength. Slender horſes are unfit for it; but a three or four-year old coach-horſe may be occaſionally uſed; and, in caſes of deformity or lameneſs, may be continued as a farm-horſe. If to this be added, the extravagant prices which this deſcription of coach-horſes have recently borne, the Vale farmers may be right in propagating the breed *.

Be this as it may, they are moſt aſſuredly wrong, when they give encouragement to the *Fen Breed*, the "Howden mack" of BLACK CART-HORSES, which I am ſorry to ſee worming their way into the Vale. The breed of grey rats, with which this Iſland has of late years been over-run, are not a greater peſt in it than the breed of black fen horſes: at leaſt while cattle remain ſcarce, as they are at preſent; and while the fleſh of horſes remains

* The WOLDS and HOLDERNESS have been longer in the practice of breeding coach-horſes.

mains to be rejected as an article of human food.

Let the Vale-farmers continue to plow with coach-horſes, and uſe oxen in carriage: a breed of horſes better calculated for eating than working, and whoſe main tendency is to render their drivers as ſluggiſh as themſelves, are ill-adapted to the preſent rents of the Vale. Norfolk has already experienced the evil conſequences of encouraging that breed; and I hope this country will not ſuffer by the ſame indiſcretion. It is laughable enough to ſee a ſlender half-bred mare, who perhaps, a few years ago, received the embraces of *Jalap* or his offspring, bending under the weight of a cumbrous animal, whoſe very legs, in all their admired roughneſs, are nearly equal in ſize to the body of her former gallant. No wonder that monſters, having not their likeneſs in nature, ſhould be the produce of ſuch unnatural amours.

II. Breeding Horses. From what has been ſaid reſpecting the ſuperiority of Yorkſhire horſes, it will, no doubt, be expected that

great attention is paid to breeding; and that the myſteries of it will be diſcloſed; while, perhaps, others have conceived that their ſuperiority is more owing to the art of breeding than to the geniality of climature. I ſhould be ſorry if truth oblige me to diſcover the miſjudgment of my readers; and feel myſelf aukwardly circumſtanced in being under the neceſſity of diſcloſing the miſconduct of my countrymen.

In different parts of the kingdom the breeding of *race-horſes* is reduced almoſt to ſcience. In the Midland counties, the breeding of *cart-horſes* is attended to with the ſame aſſiduity as that which has of late years been beſtowed on cattle and ſheep; while the breeding of *ſaddle-horſes, hunters,* and *coach-horſes,* is almoſt entirely neglected; is left almoſt wholly to chance: even in Yorkſhire! I mean as to FEMALES. A breeder, here, would not give five guineas for the beſt brood mare in the kingdom;—unleſs ſhe could draw, or carry him occaſionally to market; nor a guinea extraordinary for one which would do both. He would ſooner breed from a rip which he happens to have upon

upon his premiſes; though not worth a month's keep.

But how abſurd. The price of the leap, the keep of the mare, and the care and keep of her progeny, from the time they drop to the time of ſale, is the ſame, whether they be ſold from ten to fifteen, or from forty to fifty pounds each.

Almoſt every thing depends upon the MARE. There is an inſtance, in this neighbourhood, of the offspring of one mare being ſold *to dealers* for four or five hundred pounds. What are a few guineas in the firſt purchaſe of a good mare? and what are a few days plowing, or a few rides to market, compared with the difference between a race of good and of ordinary horſes?

It appears to me evidently, that much remains to be done in this department of Rural Economics. Good STALLIONS may be had for money; and the different hunts in the ſouth of England will, ſo long as they remain, be a ſource of MARES moſt ſuitable to the purpoſe of breeding CAPITAL HUNTERS. Mares lamed or ſtiffened by ſevere exerciſe, and improper treatment, are generally to be

bought in the neighbourhood of these hunts, at moderate prices. And mares fit for the breeding of COACH-HORSES are to be met with in every county.

The present prices given for hunters and coach-horses; and more especially the declension of the breeding of the former; are incitements sufficient to induce men of spirit to make an attempt. Nothing appears to me to be wanting, but a BAKEWELL to take the lead.

While the nation remains in its present state of refinement, horses for the *road* and the *field* are in a degree necessary; but *racers* and *cart-horses* might, with less inconveniency, be dispensed with.

The King's Plates have probably had their use in improving the English horse in activity and fleetness. But the original intention of them has long ago been answered: RACE-HORSES are now fit for the purpose of *gamesters* only. They are in general drawn much too fine for *use*. Therefore to continue these prizes will be distributing the nation's money toward the worst of purposes: the encouragement

ragement of gaming; and the injury of the breed of Engliſh horſes. The broad-loined, deep-cheſted, old Engliſh hunter is giving place to the lank feeble racer. If it ſhould be ſtill thought *proper* to continue the King's Plates, it would certainly be wiſe to raiſe the limited weight to twelve ſtone.

With reſpect to CART-HORSES,—if extending the ſaddle-horſe tax to farm-horſes in general would leſſen their number, and increaſe that of working oxen, it would be political to extend it without loſs of time.

Under the preſent head it may be proper to regiſter an idea which I have met with in this country; and which, evident as it may ſeem, never occurred to me before, either in theory or practice.

It is a fact, well-eſtabliſhed in the common practice of this Diſtrict, that ſpayed heifers *work better*, and have in general *more wind*, than oxen; and it is not doubted that SPAYED MARES would have an equal preference to *geldings*.

I do not, however, find that the experiment has ever been tried. The reaſon held out againſt it, though formidable at firſt ſight,

ſight, proves a mere ſhadow on examination. The ſpaying of fillies would undoubtedly ſpoil them for *brood-mares*. But does not the gelding of a colt ſpoil him for a *ſtallion?* What breeder, when his mares foal, wiſhes for fillies? and what dealer would not willingly give half-a-crown a piece to have his mares changed into geldings? or perhaps into animals ſuperior to geldings?

In the ſpring of the year *open mares* are faint and troubleſome. Nothing ſeems to be wanted but a ſafe cutter and a man of ſpirit to ſet him to work, to bring the ſpaying of female foals into common practice.

It does not follow that, becauſe a part of the female foals ſhould be cut, there would not be open mares to breed from, any more than it does, that becauſe ſome heifers are ſpayed for the yoke, or for fatting, there are not cows enow ſufficient for the purpoſes of breeding and the dairy.

I do not mean to *recommend* a practice of which I have had no experience; but if the experiment has not been tried, it ſtrikes me forcibly that it is worth the trial;—and

that

that it is more than time it were ſet about.

III. MAKING-UP HORSES. The *age* at which young horſes are here made up for a market is four or five years old.

Some breeders *make-up* their own horſes; others only *back* them, and perhaps uſe them gently in *harneſs*; ſelling them at full age to PROFESSIONAL DEALERS; who, with arts beſt known to themſelves, make them fat and fine-ſkinned—ſet up their tails—abridge occaſionally the number of their teeth,—and teach them their ſtable exerciſe.

Some are bought up at two or three years old by HORSE-DEALING FARMERS; who *grow* them upon good land; break them into the ſaddle, at leaſt; and finally make them up, *according to art*, for market.

One farmer in the Vale is ſaid to make-up an hundred annually. And one dealer at Malton is ſaid to have ſometimes two or three hundred horſes in his ſtables at once.

Making up horſes upon a FARM, by a man who is a judge, is a moſt profitable branch of huſbandry. Oats, hay, and ſtraw, find a market on the ſpot; and *town* manure is procured

procured in quantity without the expence of fetching.

IV. MARKETS FOR HORSES. *Malton* has the only HORSE-SHOW in this Diſtrict. It is held in the ſpring of the year, and continues for the week; namely, the week before Palm-Sunday.

At this fair great number of made-up horſes are ſold. They begin to go in on Monday. Tueſday and Wedneſday are the principal days for good horſes. Thurſday and Friday generally exhibit an inferior ſort. And Saturday, which is likewiſe a great cattle fair, is principally a ſtallion-ſhow; and a fair for refuſe-horſes; which on this day are ſhewn in the open market.

During the week-days, the horſes are ſhewn in ſtables, fitted up at the inns, and in private yards, for the purpoſe; being only led out occaſionally, at the deſire of the chapman.

The hours of ſhow are the morning before breakfaſt, the forenoon, and again in the evening; the ſtables being univerſally ſhut during meal-times.

The

The ſhow conſiſts of well-bred hunters, inferior ſaddle-horſes, and light coach-horſes; moſt of them being bred in the Vale, on the Wolds, or in Holderneſs; ſome few from Cleveland and the upper part of the Vale of York.

The purchaſers are the *London dealers* and *foreigners*, eſpecially of FRANCE and PRUSSIA.

In 1783, the French markets being then recently opened by the peace, ſeveral French dealers were at this ſhow. The favourite colours, yellow bays, greys, and cheſnuts. Brown, the Engliſhman's favourite colour, is diſliked by foreigners.

But of late years the principal part of the firſt-rate horſes have been bought by the dealers, foreign and domeſtic, *previous to the ſhow*, at the houſes of the country dealers or the breeders.

The prices various: from fifteen to fifty pounds includes the majority of the made-up horſes ſold at Malton-ſhow. They are led in ſtrings to London, or ſhipped off at Hull for foreign markets. In 1783, a veſſel laden with horſes, bought at this ſhow and in the neighbourhood, was loſt off the coaſt of Yorkſhire.

V. TREAT-

V. TREATMENT OF WORKED HORSES. In a District where the working of oxen has been for many ages the eſtabliſhed practice, it cannot be expected that any very accurate management of DRAUGHT-HORSES can have taken place. But in a country which has always been conſidered as the ſource of good HUNTERS, and the ſchool of good horſemanſhip, it may be reaſonably ſuppoſed that a ſuperiority of management prevails.

This, however, is not, from what I have ſeen, the caſe. The only ſtriking feature of management which has caught my notice is, that of turning hunters and other hard-ridden horſes out into the field in the day-time in winter; cold or warm, and ſometimes wet or dry: a practice which has been cried up by many great horſemen, and is to be met with in every part of the kingdom; though nowhere ſo prevalently, perhaps, as in this country.

It has always ſtruck me as a bad practice. Nevertheleſs, in compliance with the cuſtom of the place I was in, I let a mare, which I rode into the country in 1782,

run

run out to graſs on leiſure-days, and lie in the houſe at nights. The conſequence was unfavourable, and ſufficiently ſtriking to induce me to minute the circumſtances at the cloſe of the occurrence.

As the ſubject appears to be of conſiderable importance, I will here copy the Minute.

"1783, *March* 11. There are perhaps few horſes which will bear to be hunted one day and turned out to graſs the next. My brother's practice is to let his horſes run at graſs in the middle of the day throughout winter. In conformity with this plan, mine was turned out in the day-time whenever I did not want to uſe her. On my arrival here in November laſt, though I had rode her a journey of two hundred miles, ſhe was as fat as a mole, and her careaſe round as a barrel. In the early part of winter I rode her a good deal, and ſhewed her the hounds generally once a-week. With this exerciſe I was not ſurpriſed at her ſhrinking. But having more lately given her eaſe in order that ſhe might recover her fleſh and ſpirits, without finding any alteration, I had good reaſon to think that

that it was not altogether the work, but the treatment, which kept her down; for with all the indulgence I could give her, her sides, ten days ago, were clapped together, and her hide stuck as close to her ribs as if it had been glued to them. Her appetite for dry meat at least was gone. She would let her corn lie in the manger untouched; though for the time I have had her—six years—she has always been a remarkable good feeder. I had some blood taken from her, but she still remained the same. Suspecting that hanging after the grass was the only cause of her ill-thriving, she has for the last ten days been kept entirely in the house. Her skin is already loose and silky, and she calls for corn every time the stable-door is opened. The other day she wanted spurs. Now she is all spirits again. — — turned out a mare, which he had hunted the day before, to grass, on a cold day. She got a violent cold; was seized of her limbs; and it has been with great difficulty he has saved her. — — began to turn out a valuable mare which he hunted occasionally; but finding that she refused her dry meat, he discontinued it; and now finds that

she

ſhe has taken to her hay and corn again. My brother's horſe, uſed to it as he has been from his infancy, and pampered as he conſtantly is, looks more like a common hack than a hunter.

"There are two reaſons why a horſe which is ſubjected to violent exerciſe ſhould not be expoſed at graſs, in ſevere weather. It takes them off their dry meat; and horſes which ſweat much are in the nature of things more chilly, ſuffer more from pinching cold, and are more liable to be ſeized by acute diſorders, than horſes which have more moderate exerciſe, and whoſe frames are leſs relaxed. A horſe which has been enured to thoſe tranſitions of heat and cold will, no doubt, bear them better than one which has always been uſed to a warm ſtable; and which certainly ought not to be expoſed to ſuch dangerous treatment without the greateſt precaution.

"I am nevertheleſs of opinion, that letting a horſe run out in winter keeps his legs cleaner and more ſupple than ſtanding always in the ſtable. My mare was not freſher on her legs

at four years old than she has been this winter. And if hunters could be turned out on leisure-days, when the weather is tolerably fine, into a spacious place to hay and corn, without grass, I am of opinion it would be of great service to them. Horses which are unavoidably exposed to transitions from heat to cold—as hunters frequently are, in sauntering by the side of a cover after a hard run—ought, indisputably, to stand in a cool stable, and to be exposed to the open air on leisure-days, so far as the state of perfect *health* and *vigour* will permit: *but no farther.*"

I make no comment on the foregoing facts and reflections. I insert them as a caution to the inexperienced: and as hints to those who wish to hit the happy medium of treatment.

Turning out horses to grass in the spring.—I met with an idea in this District respecting the first turning out of a horse entirely to grass, which deserves to be generally known.

When a horse is thrown up, or turned out at nights to grass, in the spring of the year, it is common to choose the *forenoon* of a *fine day* to do it in. The natural consequence is,

the

the horſe fills his belly during the *ſunſhine*, and lays him down to reſt in the *cold of the night*; thereby probably expoſing himſelf to diſorders.

A much better practice prevails here. The horſe, inſtead of being turned out in the morning, is turned out *at bed-time*. The conſequence is, he *eats all night*, and ſleeps in the ſunſhine of the next day *.

* It is generally underſtood here, that HORSES AT GRASS do not require WATER. They are frequently kept for months together in dry upland paſtures without water, and without any apparent inconveniency.

14.

CATTLE.

IN A SEQUESTERED Vale abounding with GRASSLAND, cattle may be expected: they are the moſt natural ſtock.

In the unincloſed ſtate of this Vale, the Commons and Cars were applied chiefly to the rearing of WORKING OXEN and a few DAIRY COWS. In the Weſt Marſhes and other central parts of the Vale, which have been incloſed time immemorial, and which, until of late years, have always lain in a ſtate of rough graſs, great numbers of YOUNG CATTLE were reared for ſale.

Converting the Lowlands to arable; incloſing the Commons; and laying the arable fields to graſs, have wrought a conſiderable change in what may be called the ECONOMY OF LIVE STOCK; more eſpecially in the ECONOMY OF CATTLE. DAIRIES have increaſed;

GRAZING

GRAZING has been introduced; and REARING has declined.

Thus far, however, the Vale may be ſaid to have reared its own ſtock; excepting ſome few SCOTCH CATTLE, which are annually brought into it for the purpoſe of clearing rough paſtures in winter; and to be fatted on ſecondary grazing-grounds the enſuing ſummer.

To give an adequate idea of the nature and management of cattle in this Diſtrict, it will be proper to divide the ſubject into four principal diviſions: namely,

1. The Species or breed,
2. Cows and dairying.
3. Rearing cattle.
4. Fatting cattle.

I. SPECIES. Within the memory of a perſon now living; namely, about ſeventy years ago; the ancient breed of BLACK cattle, which probably once prevailed throughout England, and whoſe name is ſtill very improperly uſed in ſpeaking of cattle in general, were the only breed of cattle in this Diſtrict. By deſcription, they appear to have reſembled the preſent breed of the Lowlands of Scot-

land: moſtly *all black*; but ſome with *white faces:* moſtly *horned*; but ſome of them "humbled;" that is *hornleſs*.

To theſe ſucceeded a BLACK AND WHITE breed; probably a *variety* of the original ſpecies. But ſtill the *red cow's milk* was conſidered as medicinal; and many inveterate diſorders were no doubt cured with it: that is to ſay, by a perſeverance in milk-diet.

The black mottles, probably a tranſient ſort, were ſucceeded by the LONG-HORNED or "Craven breed:" the probable, and, I believe, undoubted origin of the preſent celebrated breed of the Midland counties.

But in a country where the buſineſs of aration was carried on principally by *oxen*, this breed was found extremely inconvenient. Horns a yard long were not only troubleſome but dangerous in yoke; eſpecially in the narrow roads and hollow ways with which the Diſtrict formerly abounded. Accidents were frequently happening to them; by getting their horns entangled in the hedge or the bank; ſometimes breaking off their horns; but more frequently breaking their necks.

This

This was a ſufficient inducement for adopting the SHORT-HORNED or "Holderneſs breed:" probably of *Dutch* extraction. This change took place ſome forty or fifty years ago: and the ſhort-horned breed ſtill prevails; though it has undergone ſeveral alterations ſince its firſt introduction.

The firſt variety of this ſpecies of cattle which I can recollect, was a thick, large-boned, coarſe, clumſy animal: remarkably large behind, with thick gummy thighs. Always fleſhy, but never fat; the *fleſh* being of a bad quality. This, however, was not the worſt: the *monſtrous* ſize of the buttocks of the calf was frequently fatal to the cow. Numbers of cows were annually loſt in calving. Theſe monſters were ſtigmatized with the epithet *Dutch-buttocked*. This was probably the worſt breed the Vale ever knew.

The unprofitableneſs of the "Dutch breed" being evident, men of diſcernment began to ſet about improving it. In the courſe of the laſt twenty years the bone has been lowered, the hind-quarters reduced, and the fleſh and fatting quality very much improved; not by foreign admixtures and un-

natural croſſings, but by chooſing the cleaneſt and beſt-fleſhed bulls and heifers from among their own or their neighbours ſtock.

It is very obſervable, however, that in effecting this improvement, the *horn* has been conſiderably *lengthened*; the preſent prevailing breed appearing as if it were a croſs between the old ſhort horizontal horn—(provincially, "buckle-horns")—and the middle elevated horn of Herefordſhire and Suſſex: not, perhaps, from either of theſe breeds having been employed in the improvement, but merely from the circumſtance of a "fine horn"—namely, a clean, ſmall, ſharp horn—having been *faſhionable* for the laſt twenty years.

This ſhews how much the appearance, as well as the nature or conſtitution, of a given breed of ſtock may be altered and improved, without calling in the aſſiſtance of *alien breeds*. Even the Dutch buttocks were probably *bred* in England.

The Holderneſs breed, on their firſt introduction into the Vale, were ſaid to be *thin-quartered*, too light behind, and too coarſe before; large ſhoulders, coarſe necks, and deep

deep dewlaps. This form being found diſadvantageous to the butcher, encreaſing the quantity of the coarſer parts, and reducing the weight of the prime pieces, the breeder endeavoured to enlarge the hind-quarters; and had he ſtopped when he had got to the happy medium, he would have wrought a good work. But the faſhion was ſet;—"cloddy" bullocks were in eſtimation; and their evil qualities were overlooked until they were rendered too obvious, and the conſequences above-mentioned had taken place.

The *form* and *ſize* of the PRESENT BREED OF THE VALE may be ſeen in the following dimenſions of a working ox riſing five years old; above par as to form, but ſomewhat beneath it in point of ſize.

Height at the withers, four feet eleven inches.
——— of the briſket from the ground, twenty inches.
Smalleſt girt, ſeven feet four inches.
Largeſt girt, eight feet five inches.
Greateſt width at the ſhoulder, twenty-two and a half inches.
——————— at the huckle, twenty-three and a half inches.

Greateſt

Greateſt width at the round-bone, twenty-one inches.

Length from forehead to nache, eight feet five inches.

———— the center of the ſhoulder-knob to the center of the huckle, four feet one inch.

———— the center of the huckle to the extremity of the nache, twenty-two inches.

Length of the horns, fourteen inches.

Width of the horns at the points, twenty-two inches.

The eye full and quick.

The head and neck clean.

The bone ſomewhat large.

The chine and buttocks full.

The fleſh ſoft and mellow to the hand.

The colour blood-red, marked with white.

But a variety new to the Vale is now creeping into it: the TEES-WATER BREED;—a variety of the ſhort-horned ſpecies. This variety is eſtabliſhed on the banks of the Tees, at the head of the Vale of York, and is held out as the "true Yorkſhire ſhort-horned breed." Be this as it may, much attention has

has been beſtowed on its eſtabliſhment; and it appears to be at preſent a moſt valuable breed of cattle: valuable, I mean, to the *grazier* and *butcher;* the bone, head, and neck fine; the chine full; the loin broad; the carcaſe throughout large and well-faſhioned; and the fleſh and fatting quality equal, or perhaps ſuperior to thoſe of the preſent breed of the Vale; which, however, appear to be more *active*, more *athletic*, and fitter for the *yoke* or *harneſs*.

In forming that variety, a horn very different from that which is prevalent in the Vale has been produced. The "buckle-horn" is in this caſe, as in the other, ſomewhat lengthened; but the *faſhionable* horn on the banks of the Tees is a clubbed down-hanging horn, as if, in forming it, a daſh of Craven blood had been thrown in. And it may be a moot point; whether the horns of the two breeds, now particularly under notice, may have been produced by faſhion alone; or whether the Tees-water horn may not have been altered from the original ſhort horn, by a ſlight intermixture of the Craven breed; and whether the Holderneſs breed, from

from which the Vale cattle have indiſputably originated, may not have had a ſimilar admixture of the middle-horned blood.

I wiſh to trace the origin and progreſs of the different breeds of cattle in the Iſland; but I find it will be a difficult taſk to do it with ſtrict accuracy.

The HORN is the beſt criterion for diſtinguiſhing the different *ſpecies* (if the term be applicable) of cattle. It is a PERMANENT SPECIFIC CHARACTER. The *colour*, though not altogether accidental, is changeable; and neither the *form* nor the *fleſh* are permanently characteriſtic of any particular ſpecies. Good form and good fleſh may be found in every ſpecies; though they are by no means equally prevalent nor equally excellent in all. But a horn ſix inches long was never yet produced by the Craven breed; nor one a yard long by the Holderneſs breed. And the middle-horned breed of Herefordſhire, Suſſex, and other parts of the Iſland, appears to be as diſtinct a *ſpecies* as either of the former.

Theſe are my only reaſons for being ſo minutely deſcriptive of the horns of cattle. I am not a BIGOT to horns of any ſhape or length.

length. I would as ſoon judge of a man's heart by the length of his fingers, as of the value of a bullock by the length of his horns.

If his *fleſh be good* and *well laid on*, and his *offal be proportionably ſmall*; if he *thrive well*, *fat kindly at an early age*, or *work to a late one if required*; I would much rather have him entirely *without horns*, than with *any* which ENTHUSIASM can point out.

The doctrine of horns has long appeared to me as a ſpecies of SUPERSTITION among *Farmers*, and as a CRAFT convenient to *leading-breeders*, in eſtabliſhing their reſpective *ſyſtems*.

But leſt I ſhould have cauſe to repent of my raſhneſs in ſpeaking thus irreverently of horns, I will here allow them all the merit which, in my opinion, truth entitles them to.

The horn has been mentioned as a permanent ſpecific character of cattle. Hence in varieties it may have its uſe as a criterion. Thus ſuppoſing a male and female of ſuperior form and fleſh, and with horns reſembling each other (as nearly as the horns of males and females of the ſame variety naturally

rally do), no matter whether ſhort or long, ſharp or clubbed, riſing or falling; and ſuppoſing a variety to be eſtabliſhed from this parentage, it is highly probable that the horns of the parents would continue for a while to be characteriſtic of the *true breed*, and might by inferior judges be depended upon, *in ſome degree*, as a criterion.

But it is indiſputable that horns remain the ſame, while the fleſh and fatting quality change; and every man of ſuperior judgement will depend more upon the form and *handle* of the carcaſe, than upon the length and turn of the horn. For it is a notorious fact, that the individuals of a given variety may have exactly the ſame horns, without having exactly either the ſame faſhion or the ſame fleſh.

If there be any criterion or *point* of a beaſt which may be *univerſally* depended upon as a guide to the grazier, it is the EYE, not the horn. The eye is a mirror in which the *health* and *habit* of the animal *at leaſt* may be ſeen with a degree of certainty.

II. Cows.

II. Cows. This admits of two principal ſubdiviſions.

1. Management of Cows.
2. Dairying.

1. MANAGEMENT OF Cows. This ſubject requires to be further ſubdivided into

1. Rearing.
2. Purchaſing.
3. Treatment.
4. Diſpoſal.

1. *Rearing.* It has already been ſaid that the Vale ſtill continues to rear its own ſtock. The rearing of *cows* will appear in the next ſection, under the general head REARING CATTLE.

2. *Purchaſing Cows.* Though a dairyman may in general rear his own cows, he muſt be fortunate indeed if he never have occaſion to purchaſe a cow.

The favourite *points* of a milking-cow here are, a thin thigh; a lank thin-ſkinned bag hanging backward; teats long, and ſufficiently free of milk without ſpilling it; dug veins large; and horns yellow. I will not vouch for the infallibility of *all* theſe points; but this I can ſay, that I never noticed a cow with a thick fleſhy thigh which was a good milker.

The *dimenſions* of the handſomeſt cow I have ſeen of the true Vale breed, riſing five years

years old, and within a few months of calving, are as follow:

Height at the withers, four feet five inches.
——— of the briſket, eighteen and a half inches.
Smalleſt girt, ſeven feet one inch.
Largeſt girt, nine feet two inches.
Width at the ſhoulder, twenty-one and a half inches.
——— huckle, twenty-four inches.
——— round-bone, nineteen inches.
Length from forehead to nache, ſeven feet five inches.
——— center of the ſhoulder-knob to center of the huckle, three feet eleven inches.
——— center of huckle to the out of the nache, twenty-one inches.
Length of the horns, ten inches.
Width at the points, eighteen and a half inches.
Head, neck, and leg, *fine* and *clean*.
Chine full, and back level.
Colour, a darkiſh red mottled with white.

3. *Treat-*

3. *Treatment of Cows.* Here, as in all countries where grazing gives place to the dairy, milked cows are indulged with the beſt the farm will afford. The beſt land for paſture in ſummer; the head of the ſog in autumn; and generally hay moſt of winter. *This* practice has already been noticed. If the preſent breed of cows require hay when they give no milk, it is a depreciation of their value as milking-cows.

Be this as it may, there is certainly one diſadvantage of the Vale breed of cows; which, I believe, is common to all the varieties of the ſhort-horned breed. This is their *difficulty in calving.* For notwithſtanding the *fleſhineſs* of the hind-quarter has been ſufficiently done away, the *bones* ſtill remain. The loin is ſtill broad, and the huckles ſtill protuberate; perhaps too much, either for ſightlineſs or uſe.

An improper treatment of the cow may encreaſe the difficulty. A cow can ſcarcely be too low in fleſh a month before ſhe calves. Good keep three weeks or a month before calving gives due ſtrength and a fluſh of milk. The cauſe may be difficult to point

out with preciſion; but the effect is well aſcertained.

It is a fact, that ſhort-horned cows ſeldom calve without *aſſiſtance*. Their hour of calving is watched with obſtetric ſolicitude; the perſon who has the care of them frequently riſing in the night, and ſometimes ſitting up with them the night through. From conſtant obſervation, however, a good dairyman will judge at bed-time the hour of calving, ſufficiently near to know whether it will be neceſſary for him to riſe before his uſual time.

4. *Market for Cows.* Milking-cows are moſtly ſold at the neighbouring fairs, *with calves by their ſides.* Sometimes, but not frequently, they are ſold as *incalvers.* The medial *price* of a cow and calf, on a par of the laſt ten years, ſeven to nine pounds.

Dry cows—provincially, "drapes"—are either ſold at the fairs to jobbers, who buy them up for the Midland or South-of-England graziers, or are fatted on the dairy-farm with aftergraſs, turneps, &c.—The medial *price* of a lean "drape" of the Vale breed, on a par of the laſt ten years, five to ſix pounds.

2. DAIRY-

2. DAIRYING. The objects of the Dairy are,

1. Calves, for the butcher and for rearing.
2. Butter, for home conſumption and the London market.
3. Skim-cheeſe, for home conſumption.
4. Swine, for family-uſe and for ſale.

1. *Calves.* The *rearing* of calves will be ſpoken of in the next ſection. The *fatting* of calves belongs properly to this.

There is a practice, pretty common in this neighbourhood, though not general, which merits notice from its ſingularity rather than from its excellency. In this practice the calf never ſucks its dam! which, from the time of her calving, is milked into a pail, and the warm milk immediately given to the calf; which, never having had the teat, ſoon learns to drink.

The chief reaſon given for this practice is, that the cow does not pine after her calf; ſo much, at leaſt, as when it is permitted to ſuck her.

For *rearing* calves I can ſee no material objection to this method, except that of additional labour, which is ſtill more encreaſed

when calves are *fatted* in that way; the time being longer in this caſe: and it ſeems to be allowed that calves do not fat ſo kindly with the pail as when they ſuck the cow; nor is it probably ſo good for the udder of the cow.

2. *Butter.* Great quantities of butter are annually ſent out of the Vale. Many thouſand firkins are ſent from Malton; and the produce of the weſt end of the Vale goes principally to York.

The fraternity of cheeſemongers in London have agents, placed in different parts of the country, ſtiled "ſearchers," who probe and examine the quality of every firkin; marking it *firſt*, *ſecond*, *third*, or "*greaſe*," according to its intrinſic quality.

The *firſts* and *ſeconds* go to the London market; the "*greaſe*" to the woollen-manufactory in the weſt of Yorkſhire.

There are "weighers" likewiſe employed to check the weight of each firkin, each of which has its maker's name branded upon it. Theſe are wiſe regulations:—the ſearchers' mark is a guide to the London dealer, as the farmer's name is to the country "factor." If

it

it will not bear the ſearch, the factor has a clue to the farmer; if, on its arrival in London, it do not anſwer the mark, it is returned upon the ſearcher.

After what has been ſaid in the RURAL ECONOMY OF NORFOLK on the ſubject of BUTTER-MAKING, there is nothing in the practice of this Diſtrict which entitles it to minute deſcription. There are, nevertheleſs, a few particulars which may merit notice.

Cleanlineſs, the baſis of good management, is well attended to in moſt dairies; perhaps too cloſely in ſome. Formerly, the milk was ſet wholly in deep wooden bowls, almoſt ſemiglobular: a worſe form could not be well deviſed. Now, it is ſet principally in leads—provincially, "lead-bowls"—made in the uſual broad flat ſhallow form; a form much better calculated for raiſing the cream *.

* In ſome countries milk-leads are ſkimmed with a ſkimming-diſh. Here, the milk is let off through a hole in the center, leaving the cream in the lead. The pipe through which the milk eſcapes is fitted with a tall wooden ſtopper. Previous to drawing the ſtopper, a looſe wide leaden pipe, ſeven or eight inches long, is put over it. The baſe of this pipe is notched, or otherwiſe made uneven, ſo as to admit the milk to ſteal away beneath it, without endangering the eſcape of the cream; which (the pipe being removed) is afterwards let down through the ſame aperture,

These leads are *scalded* as often as they are used; and, in common practice, are *scoured* about once a month. But this has been found, in the practice of one whose cleanliness cannot be doubted, to be injurious to the butter churned next after the scouring of the leads. The effect is not immediately apparent; but the butter will not keep; presently turning rancid. She therefore scours her leads only once a year; about Mayday; and then with fine sea-sand; not with *salt*; the common material used in scouring lead bowls *.

The *barrel-churn* is now chiefly in use. An improvement has lately been made in its form. Formerly the staves were nearly straight; now they are bent; the churn being made considerably bulging. By this means a churn large enough to churn a firkin (56 lb.) at once, may be used to churn three

* I mention this circumstance, as many "grease firkins" may be made through the means here noticed; and, if the evil effect be caused by a solution of the particles of lead loosened by the scouring, the butter, if *eaten* in a recent state, may be of still worse consequence.

three or four pounds. The entire quantity of the cream, though ſmall, being collected in the bulge, receives its due agitation. The "ſtanding churn," an aukward utenſil, ſeems to be going out of uſe. A barrel churn, two feet and a half long, two feet diameter at the mouth, and twenty-one inches at the ends, with daſhers ſix inches wide, will churn either a firkin, or a few pounds, of butter. The price of ſuch a churn is about fifty ſhillings; iron hoops, cranks, frame, &c. incluſive.

The *firkins* are made in the neighbourhood, at very low prices (price of a "whole firkin," weighing 12 lb. 10d. to 1s.—of a "half firkin," weighing 7 lb. 8d. to 9d.). The ſtaves and heads of aſh; the hoops principally of hazle. The firkin is ſcalded and ſalted on the inſide, previous to its being uſed: ſalt is ſtrewed at the bottom; the butter cloſely kneaded in; covered at the top with ſalt; and headed up for market.

The "firſt gathering" is generally ſent to market in the ſpring, in a recent ſtate; the "ſummer butter" (namely, that gathered be-

tween the latter end of May and the beginning of November) is ſent from time to time as the factor's or the farmer's conveniency requires; or is ſometimes kept to the cloſe of the ſeaſon, and carried at once to market.

The price of firkins, for the laſt ten years, 28s. to 32s.

3. CHEESE. Skim-cheeſe—provincially, "old-milk cheeſe"—is the natural accompaniment of a butter dairy. In the richer parts of the Vale, towards the banks of the Rye, ſome "new-milk cheeſes" are made; and of a quality nearly equal to thoſe of Glouceſterſhire. But on the leaner parts of it, this ſpecies of cheeſe is ſeldom attempted.

I have met with nothing ſtriking in the manufacturing of ſkim-cheeſe to deſerve notice; excepting what relates to the CURD-MILL; a utenſil of the dairy which I never met with elſewhere, and which is new to this Diſtrict.

In *making ſkim-cheeſe*, the curd is broke-up in the whey; the whey, when the curd has ſubſided, laded off; the remainder, with the curd, thrown into a coarſe ſtrainer; and having

ing lain abroad in this (ſpread over a large tray, with a hole at the corner to let out the whey which drains off) until quite cool, the corners and looſe part of the ſtrainer are gathered together in the hand, and the curd ſqueezed as hard as the hands can preſs it. The curd in the ſtrainer is then put into a vat, and ſet in the preſs for a few minutes to diſcharge the remaining whey more effectually. The whey having done running, the curd is taken out of the preſs, and rebroke as finely as poſſible; ſalted; and returned to the preſs.

It is in the final breaking the CURD-MILL is uſed. The labour of doing it by hand, when a large quantity of curd is to be broken, is almoſt intolerable. In a large dairy, a curd-mill muſt be found very valuable *.

The

* CURD-MILL. This utenſil conſiſts of two rollers working in a thin deep cheſt, one above the other; on the principle of the common cyder-mill of the ſouthern counties. The upper one is ſtuck with iron ſpikes, an inch long, and 1½ inch aſunder.—The lower one is cloſely ſet with bevelheaded nails, riſing with a ſharp angle about a tenth of an inch out of the ſurface of the roller. The curd, partially broken, is put into a hop-

The *conſumption* of ſkim-cheeſe is principally in the neighbourhood of its manufacture. It is eaten by almoſt all ranks of people. If well made, it is not only palatable, but, I apprehend, a very wholeſome food. To have it in perfection it ſhould be, what is called, kept one year under another: that is, ſhould not be eaten under a year old.

The *price* on a par of the laſt ten years 2s. to 2 s. 6d. a ſtone (of 14 lb.).

4. *Swine.* The whey of ſkim-milk is only a lean beverage for ſwine; but mixt with butter-milk, a tolerable food is formed. Pigs, however, are only *grown*, ſeldom *fatted*, with the "ſwillings" of the dairy.

a hopper, the bottom of which is the upper roller; which working againſt the ſide of the box, prepares the curd for the bottom roller; which, being finer, and working cloſer, grinds it down to ſmall granules. The rollers are about ſix inches diameter, and fifteen inches long. They are both of them turned by one crank; put on one end of the axle of the upper roller. On the oppoſite ends of the rollers are fixt two even-toothed wood wheels; working in each other, and giving motion to the lower roller.

The

The *produce* of a good cow in a common year is thus calculated:

A rearing calf	—	0	15 0
3 firkins of butter *,	—at 30s.	4	10 0
½ cwt. of ſkim-cheeſe,	—at 18s.	0	9 0
Milk and whey for hogs		0	10 0
		£. 6	4 0

III. Rearing cattle.

1. Calves.

1. *Time of rearing.* Candlemas to Old Ladyday.

2. *Points of a rearing Calf.* The *form* I paſs over in this place, as not having met with an accurate definition of it in this country; where the *blood* and the *colour* ſeem to be more attended to by breeders in general than the form.

A "*raw noſe*;" that is, a *white muzzle*, with noſtrils red on the inſide; is conſidered as a bad mark, portending a tender beaſt: on the contrary, a black or brown muzzle, with dark-coloured noſtrils, is eſteemed a ſign of hardineſs.

A calf

* A large dairy of cows in which heifers are intermixt, ſeldom turn out three firkins each. Two and a half is, I believe, eſteemed a good produce, taking the dairy round.

A calf *entirely white* is generally rejected, under a notion that white cattle are of a tender nature; that they are peculiarly subject to louſineſs; and that they are diſliked by their aſſociates! The fineſt ox I ever knew of the Holderneſs breed was *white*. The fineſt ox I ever ſaw of the Tees-water breed was *white*. One of the fineſt cows now in the Vale is *white*. Nevertheleſs, valuable calves are annually ſent to the butcher, merely becauſe they are *all white*. The ſmalleſt ſpeck of colouring; even the tip of an ear, red or black; ſaves them from proſcription; under a notion, no doubt, that it hardens their nature; defends them from lice; and renders them acceptable to their companions: a vulgar error, which is not confined to this Diſtrict; but which ought, in my opinion, to be univerſally exploded.

3. *Gelding Calves.* *Oxen* in this country (as probably in others) are peculiarly ſubject to a ſtoppage in the inteſtines; owing, it is believed, to the "blood ſtrings" of the teſticles being left in the body at the time of gelding. The fact ſeems to be, that

the

the diſorder is generally cauſed by a link of the inteſtines being thrown (in playing, it is ſuppoſed) acroſs a ligature ſituated near the anus; and the cure is radically effected by breaking this ligature: an operation which is not unfrequently performed *.

If the ligature be really a ſtring of the teſticle, indexterouſly left in the calf, much caution is requiſite in the operation of gelding.

An experienced cutter performed it thus: Having extricated the teſticle, and cut the ſeminal chord—the "nature ſtring,"—he forced

* I remember once to have ſeen this operation; and have lately heard it minutely deſcribed by a perſon who has repeatedly performed it. It is ſimple and ſafe. An orifice large enough to admit the hand being made in the coats of the abdomen—on the near or left-ſide—(between the ribs, the huckle, and the flank) the inteſtines are drawn forward into their natural ſituation, and the ſtring broke: otherwiſe the beaſt is liable to a repetition of the ſame diſorder. The ſymptoms are reſtleſſneſs, with attempts (but not violent, I believe) to beat the belly with the hind legs; and with a ſtoppage of the fœces; nothing paſſing through the body but a white ſlimy matter. In many places I apprehend this diſorder is not well underſtood; being miſtaken for *maw-bound*, or other internal diſorder. Death is of courſe the inevitable conſequence.

forced his finger and thumb upward, as it were into the body of the calf, (which *ſtood on its legs* during the operation) drawing the "blood ſtring" twelve or fourteen inches long: the point of it appearing not abrupt, as if broken off; but fine as a thread, as if wholely extracted.

4. *Treatment of rearing Calves.* This differs in the practice of different individuals. In an inſtance which, perhaps, may be conſidered as a fair ſpecimen, the treatment is this:—The calf never ſucks its dam; but has her milk warm from the teat given to it twice a day in a pail; from the time of calving until it be a fortnight or three weeks old. At that age the calves begin to have half new milk and half ſkim-milk, *boiled* (which is thought to be more "nouriſhing" than raw milk) for about three weeks longer: they are then put to all ſkim-milk, or to milk and water, with perhaps a little oat-meal or wheat flour ſtrewed over it *; and with hay, in

* Sometimes a ſmall quantity of LINSEED JELLY is mixt with thin milk and water, and is found of great ſervice; making their ſkins remarkably ſleek and ſilky. If too much be uſed, it is liable to make them ſcour.

in the early part of the ſeaſon; or graſs, as ſoon as ſpring puts in. In the latter end of May, or the beginning of June, according to the time of their being dropped, they are turned away to graſs, and water only, for the ſummer.

2. YEARLINGS. Young cattle are, I believe, invariably, houſed the firſt winter:—generally looſe; and are generally indulged with the beſt hay the farm will afford. Their ſummer paſture is ſuch as conveniency will allow them: moſtly of a ſecondary nature. In the open-field ſtate, the common was generally their ſummer paſture.

3. TWO-YEAR OLDS. The ſecond winter, oat ſtraw is the common fodder of young cattle. Generally tied by the neck in hovels or under ſheds. Their ſummer paſture, commons, woody waſtes, rough grounds, or whatever beſt ſuits their owner's conveniency.

At two years old the STEERS—provincially, "ſtots,"—are generally broke-in to the yoke; but are not, by good huſbandmen, worked much at that age.

At two years old, alſo, the HEIFERS—provincially, "whies," are generally put to the bull.

bull. This, however, is not an invariable practice. In the ſtate of commonage, they were frequently kept from the bull until they were *three* years old: now, in the ſtate of inclоſure and improvement, and at the preſent high rents, they are frequently ſuffered to take the bull when *yearlings*; bringing calves at two years old.

This is an intereſting ſubject in the management of cattle. Farmers in every Diſtrict differ in their opinions reſpecting it.

The arguments for bringing heifers in at TWO YEARS OLD, are, that they come ſooner to profit; and that farmers cannot afford, at the preſent rate of rent, to let them run, unprofitably, until they be three years old.

On the other hand, the argument in favour of bringing them in at THREE YEARS OLD is that, not being ſtinted in their growth, they make larger finer cows than thoſe which are ſuffered to bear calves at a more early age.

But I have not yet met with any man who even attempts to prove which of the two is, *upon the whole*, the more profitable practice.

The

The gardener ſeems to be well aware, that ſuffering a tree to bear fruit too early *checks its growth*; and there may be ſome analogy, in this reſpect, between vegetables and animals. But even admitting this, if the cow receive no injury as to *thriving*, *calving*, *milking*, nor any other than that of being checked in point of *ſize*; the objection appears to me to fall. If, however, early production check not only the *cow*, but her *progeny* likewiſe, an objection no doubt will lie againſt it.

I have long been of opinion that it is, *in general*, the farmer's intereſt to let his heifers take the bull whenever nature prompts them. There is undoubtedly ſome preſent profit ariſing from their coming in at an early age; and whether a middle-ſized cow may not afterwards afford as much *neat* profit as one of larger ſtature, is certainly a moot point.

Much however depends upon KEEP. A ſtarveling heifer will not take the bull at a year old. Nor ought any yearling heifer which has taken the bull, ever afterwards to be ſtinted in keep. If ſhe be ill kept while with calf, there will be danger at, or after,

the time of her calving. If afterwards pinched, there will be danger of her not taking the bull the next year.

Hence we may infer, with a degree of safety, that the propriety, or impropriety, of bringing heifers into milk at two years old depends principally upon SOIL and SITUATION.

On a good soil, and in a genial climature, in which heifers do not experience a check from the time they are dropt, they ought, I am clearly of *opinion*, to be permitted to take the bull whenever nature prompts them.

But in less genial situations, where lean ill-herbaged lands are to be pastured with young cattle, it appears to me equally evident, that heifers ought not, in strictness of management, to be suffered to come into milk before they be THREE YEARS OLD.

GEN. OBSERV. ON REARING CATTLE. The present *dearness*, arising beyond dispute from a *real scarcity*, of cattle appears to be a matter of serious import to the community. Had it not been for the immense influx of Irish cattle, which have, during the last three or four years, poured into this Island, the grazing

zing grounds could not have been fully ſtocked; nor the markets well ſupplied. There is not, generally ſpeaking, any *aged* cattle left in *this* kingdom.

There can be only two reaſons of this ſcarcity: either the CONSUMPTION OF BEEF muſt have lately *increaſed*, or the REARING OF CATTLE muſt have *diminiſhed*; or the effect muſt have been produced by the joint operation of the two cauſes.

I wiſh to bring the matter to a rational iſſue; and have endeavoured to collect evidences in the Diſtricts I have viſited. This Diſtrict affords two, which appear to be admiſſible.

Twenty or thirty years ago, there was not, for the ſmaller markets of *this* Diſtrict, a ſingle beaſt killed (except upon ſome extraordinary occaſion) during the winter, ſpring, or ſummer months. In autumn, particularly in the month of November, conſiderable numbers were butchered, to be ſalted and hung for winter proviſion; hung-beef being formerly a ſtanding diſh, not only in this, but in other Diſtricts *. But the number

* HANGING BEEF. Formerly, before the cultivation of turneps, &c. as winter food of cattle; and be-

which were then killed in autumn was small, compared with the much greater numbers that are at present butchered in the District; every market of which is now plentifully supplied with beef the year round; and this, notwithstanding considerable quantities are still hung in autumn. The market of Malton might well vie with the London markets. If only twice the quantity of beef be consumed in the District now, of what was consumed fifty years ago, the evidence is good.

Twenty or thirty years ago, great quantities of young cattle, bred in the common pastures, and in the rough grounds of the marshes, and other central parts of the Vale, were annually sent out of it. The number of lean oxen, too, which were sent out of the country

fore the use of oil-cake, &c. was known; more especially in *open* countries, at a distance from marshes, fens, and rich *hayland* Districts; the practice here noticed was a thing of *necessity*. The only opportunity the husbandman had of raising his cattle above the half-starved common-pasture condition, was in the wane of summer, with the aftergrass of the common meadows, and the stubbles of the common fields: these done, his sources of *fatting* were exhausted, without a possibility of renewal, until the wane of the ensuing summer.

country was very conſiderable. Now, the Vale, perhaps, barely rears its own ſtock. A few young cattle may go out of it every year; but a number of Scotch and ſome Iriſh beaſts, and generally more or fewer young cattle from the Tees-water quarter, are annually brought into it. A few lean oxen, (few in compariſon with what formerly went out) and ſome barren cows; and a ſurplus of fat cattle driven to the ports of Whitby and Scarborough; may be ſaid to be the only cattle which the Vale at preſent ſends to market.

The cauſes of this decline are the increaſe of horſes; the increaſe of tillage in the lower parts of the Vale; and the increaſe of the dairy upon its margins; an increaſe of grazing grounds in the richer parts; and, throughout, an increaſe in the conſumption of beef.

This too may be fairly admitted as a circumſtantial evidence, at leaſt, of a growing ſcarcity of cattle at preſent in theſe kingdoms. I mean a ſcarcity comparative with the preſent conſumption.

I ſhall, in their proper places, have other evidences to produce. At preſent, therefore, I do not attempt any general concluſions.

IV. FATTING CATTLE. Although grazing has of late years gained ſome footing in the Vale, it does not yet fall under the denomination of a *grazing country*. A *detail* of management muſt not therefore be expected: and the only *incident* of practice which has occurred to my notice, and which appears to be entitled to a place in this regiſter, is the following; at once evidencing the propriety of *finiſhing* fatting cattle; and giving a favourable ſpecimen of the YORKSHIRE BREEDS OF CATTLE.

The ſubject of this incident is a cow which was bred and fatted in this neighbourhood. Her dam was of the improved breed of the Vale, with an admixture of the Craven or long-horned breed. Her ſire a Tees-water bull of the firſt blood; being leaped at half-a guinea a cow; which, twelve years ago, was a very high price.

From the time of her being dropped ſhe was remarked as a good thriver; ſhe came in at three years old; had one cow-calf which was reared, and three bulls, all of which died before they were three weeks old! they being

being ſeized about that age with a numbneſs in their limbs; ſoon dying with jellied joints, and ſymptoms of a general mortification. Like moſt high-bred cows, ſhe milked well for a few weeks after calving; but afterwards fell off her milk, and generally got to be good beef about Michaelmas.

After her laſt calf (in 1782) ſhe was milked until Auguſt; when ſhe was tolerable beef; worth, at the then low price of beef, about ten pounds. In autumn ſhe had after-graſs; in winter turneps, hay, and oat-ſheaves (in the houſe), but no ground corn. In March 1783 ſhe was ſold for twenty pounds to return one guinea: conſequently ſhe paid more than ſix ſhillings a week for fatting.

Her dimenſions, a few days before ſhe was ſlaughtered, were theſe:

Height about four feet ſix inches (not accurately taken).

Smalleſt girt ſeven feet ſix inches.

Largeſt girt nine feet.

Length from ſhoulder-point to huckle four feet.

Length from huckle to the extremity of the nache, two feet two inches.

Width at the huckles from out to out, two feet two inches.

Her *horns* fine; of a whitiſh-grey colour; ſharp; ſomewhat reſembling the Craven horn; but ſhorter; and turned upward at the points in the middle-horn manner: her *head* and *neck* ſmall and clean; her *legs* ſhort, and her *bone* throughout fine.

Her *points* as to fatneſs were not all of them full. Her *kernel* was ſmall, and her *ſhoulder* bare; her *fore-dug* and *flank* not extraordinary; her *chine* and *loin* were well laid up; one dimple, but not regularly cloven; ſhe was not what is called very fat *upon*: but her *rib*, her *huckle*, and her *nache*, were very good; and her *twiſt* remarkable; bulging out in an extraordinary manner *.

She

* Taking the dimenſions of cattle, and deſcribing their points with minuteneſs, is not merely a matter of curioſity. Nothing matures the judgement more ſpeedily, nor gives a more adequate idea of the due proportion of the parts of a bullock. I never, however,

She *proved* as follows: the quarters equal; exactly eighteen ſtones each; together ſeventy-two ſtones (fourteen pounds each); the tallow eight ſtones; the hide ſeven ſtones.

The weight is not remarkably great; but, that a *ſmall* cow ſhould lay it on in *ſeven months* is extraordinary.

ever, underſtood that the admeaſurement of cattle was reduced, any-where to *common practice*, until lately. In the Weſt of Yorkſhire, I am told, the manufacturers, who kill their own beef, carry meaſuring tapes to market with them. The butcher by conſtant practice may be a match for the grazier with his *eye* alone: but it is certainly prudent in the clothier to take his *meaſure* with him alſo.

A WEIGHING-MACHINE would, however, in this caſe be a much ſafer guide. One, fixed in a ſingle ſtall, opening with folding-doors to the ſtreet, would be a good appendage to any market-place.

SHEEP.

15.

SHEEP.

THERE ARE FEW large flocks kept in the VALE. The farms are chiefly ſmall, and the commons are now moſtly incloſed. Almoſt every farmer, however, keeps a few; ſo that, on the whole, the number kept is conſiderable.

The general economy of ſheep is here very ſimple. Every man, let his number be great or ſmall, rears his own ſtock: his ſtore-flock (in the incloſed parts of the Vale) conſiſting of ewes,—hoggards,—and ſheerling wedders; his returns being in fat lambs,—two-ſheer wedders, (lean or fatted on turneps, hay, &c.) and aged ewes. In the richer parts of the Vale ſheerling wedders are fatted.

But in the MORELANDS, and upon the heights of the northern margin, where conſiderable flocks are kept; eſpecially in the more

more central parts of the Morelands; a different economy prevails. The lambs are all reared, and the wedders generally kept until they be three or four ſheer; moſtly ſelling them and the aged ewes lean, in autumn, to the Vale farmers: or if the walk—provincially, the "heaf"—be good, they will ſometimes get fat enough upon the heaths for the butcher.

1. Species. 3. Treatment.
2. Rearing. 4. Markets.

I. SPECIES. The old *common* ſtock of the Vale was a thin-carcaſed, ill-formed, white-faced, hornleſs breed. This (perhaps a weak worn-out variety) has of late years been ſo much improved, as no longer to bear marks of its former degeneracy. I ſpeak of the more highly improved flocks of the Vale. The old baſe blood may ſtill be detected in the flocks of leſs attentive breeders.

The improvement has been effected by the introduction of rams of the Leiceſterſhire and Tees-water breeds; the former purchaſed or hired of Mr. CULLY of Northumberland (a ſpirited and ſucceſsful diſciple of Mr. BAKEWELL of Leiceſterſhire); and the latter

latter of Mr. Collins, and other attentive breeders, in the neighbourhood of Darlington, on the banks of the Tees.

Fortunately, perhaps, for the Vale, two of its moſt conſiderable farmers, to whom it is principally indebted for its preſent improved breeds of ſtock, differ in their opinions reſpecting the ſuperior excellency of theſe two breeds of ſheep; each of them propagating and encouraging his own favorite breed.

Both of them are excellent, though perhaps widely different in their origin. Of the Midland breed I ſay nothing in this place, as I may hereafter have occaſion to ſpeak of it fully. The Tees-water breed falls within the intention of the preſent work.

The "mud" ſheep have been inhabitants of the banks of the Tees time immemorial. I remember them twenty years ago of enormous ſize, reſembling, when their wool was in full growth, the ſmaller breeds of cattle rather than ſheep. Their *fleſh* nevertheleſs was of an excellent quality; their *wool* (as long wool) fine, and of an uncommon length, ſingularly adapted to the worſted manufactory.

The

The preſent faſhionable breed is conſiderably ſmaller than the original ſpecies; but they are ſtill conſiderably larger and fuller of *bone* than the Midland breed. They bear an analogy to the ſhort-horned breed of cattle, as thoſe of the Midland counties do to the long-horned. They are not ſo compact, nor ſo complete in their form, as the Leiceſterſhire ſheep; nevertheleſs the excellency of their fleſh and fatting quality is not doubted; and their wool ſtill remains of a ſuperior ſtaple. For the banks of the Tees, or any other rich fat-land country, they may be ſingularly excellent *.

The MORELAND breed of ſheep has always been very different from that of the Vale, and has not perhaps varied during a ſucceſſion of centuries. It is peculiarly adapted to the extreme bleakneſs of the climature, and the extreme coarſeneſs of the herbage. They live upon the open heaths the year round. Their food heath, ruſhes, and a few of the coarſeſt

* In this Diſtrict the Midland ſheep appear to gain a preference. One leading breeder lets out a conſiderable number of rams every year; and has already got the price of ten or fifteen guineas for the ſeaſon.

coarſeſt graſſes; a paſture on which, perhaps, every other breed of ſheep of *this* kingdom would ſtarve.

The Moreland ſheep are probably of Scotch extraction: they reſemble much the Scotch ſheep which are ſometimes brought into the Vale: their horns wide; the face black or mottled; in *countenance* and general appearance very much reſembling the Norfolk breed; except that their wool is ſomewhat longer, and much coarſer, than that of the Norfolk ſheep. The covering of their buttocks is mere hair, reſembling the ſhag of the goat, rather than the wool of ſheep. But this is conſidered as a mark of hardineſs; and the Moor-dale ſhepherds are ſaid to prefer a coarſe-wooled ſhaggy tup. The carcaſes of theſe ſheep are ſmall; not much larger than the heath ſheep of Norfolk: the ewes, moderately fatted, weighing from ſeven to ten pounds; the wedders ten to fourteen pounds a quarter.

II. REARING. The common time of putting ewes to the ram, in the Vale, is from old Michaelmas to the latter end of October; bringing them in the latter end of March, or the

the beginning of Aptil. In the Morelands, the latter end of November, or beginning of December, is chosen for the time of putting to, in order that the snows may be pretty well over before lambing-time.

If *twin lambs* be preferred, the ewes are put to superior keep a few weeks before the ram be admitted. This likewise brings them in nearer together than when they are put to the ram in low condition.

It is also understood by attentive shepherds, that ewes ought to have an increase of keep a few weeks *previous* to their lambing; but less judicious sheep-masters think it sufficient to put them into good keep *as they drop their lambs*.

This, however, is a very faulty practice. If there be any *mystery* in the rearing of sheep, it lies in giving the ewes a FLUSH OF MILK *at* the time of lambing. This cannot be done without putting them to good keep a fortnight or three weeks *before* that time. An additional supply of milk cannot be *commanded* in a few hours. The carcase of the ewe, as well as her udder, may require to be

fatu-

faturated at the time of lambing, leſt, *in the interim of preparation*, the lamb be ſtinted or ſtarved.

Another practice to which attentive breeders pay due regard is, that of trimming—provincially, "docking"—breeding-ewes, as early in the ſpring as the ſtate of the weather will permit. I have ſeen the bags of ewes (of the modern breed) ſo heated with the dung and urine which hung about them, as to become chafed to running ſores. The bag ought to be trimmed a few weeks before lambing (when the ewes are put to freſh keep), and the tail and buttocks as ſoon as warm weather ſet in.

GEN. OBSERV. ON REARING. To render the breeding of ſheep profitable, much attendance and attention is requiſite. A *few* ewes, therefore, cannot be worth the notice of any man, except a ſmall pains-taking farmer, who has little elſe to attend to. I have ſeen more labour and attention thrown away upon a ſcore of ewes than their whole produce was worth. A ewe-flock large enough to employ a ſhepherd, is, in many ſituations, the moſt profitable ſtock.

III. TREAT-

III. MANAGEMENT OF STORE SHEEP. The only particular of management which is here entitled to notice is, that of dreſſing them in autumn with tar and greaſe—provincially, "SALVING;"—the tar and greaſe with which they are anointed being aptly enough termed *ſalve*.

How the practice was firſt introduced into the Diſtrict under ſurvey does not appear to be at preſent known, though not of more than fifty years ſtanding. It probably travelled from the north, where I find it is now in uſe;—not from the ſouth, where I have never met with the ſmalleſt traces of it.

The intention of this practice is to kill lice, prevent the ſcab, and make the wool grow; and another idea, I believe, is, that it fortifies the ſkin againſt the ſeverity of the winter's cold.

Whether it anſwer all or any of theſe intentions I will not aſſert. Whatever may be its effects, it has now been the invariable practice of the Diſtrict for near half a century. I have not at leaſt met with more than one man who has deviated from it, through principle.

This deviation, however, is made by one who ſeldom acts from caprice. He does not wholly deny its uſe, but thinks its effect is very tranſient. He has found tobacco-water more effectual againſt vermin;—oil of tar, if cautiouſly uſed, a ſafe and certain remedy of the ſcab;—and is of opinion, that ſalving is of little if any uſe to the growth of the wool: he allows that it may encreaſe the *weight* of the wool in proportion to the quantity of dirt it contracts; but thinks it does not add to the *quantity*.

Whether it does or does not may, nevertheleſs, be a moot point:—ointment rubbed on a recent ſcar of a horſe is believed to aſſiſt the hair in growing. Pomatum is allowed to encourage the growth of the human hair; and it is *probable* that ſalve may have *ſome* effect on the growth of wool: the only doubt in my mind is, whether the advantages, upon the whole, are adequate to the expence.

This is a matter difficult to be aſcertained: I can ſay, that the ſcab does not appear to be leſs prevalent in this than in other Diſtricts: and it appears probable to me that, notwithſtanding the preſent prevalency of the practice,

tice, it will in time wear away. I will, nevertheleſs, here give a detail of the proceſs; not to prolong its continuance, but to memorize a practice which at preſent gives cold and dirty employment to thouſands, ſome weeks in every year.

The *mixture* is eight pounds of *butter* (of the ſecond, third, or fourth quality—ſee article DAIRYING) to one gallon of *tar*. The butter being diſſolved, the two ingredients are poured into a tub or other veſſel, and ſtirred for ſome time with a long wooden ſpatula; agitating them violently, and uniting them intimately together. The general guide is to keep ſtirring until the butter has regained its ſtiffneſs ſufficiently to hold the ſtirring-ſtick erect in the ointment; which, when quite cool, is of the conſiſtence of butter in warm weather. Some put the tar previouſly into the "ſalve-tub," and ſtir that alone until it loſes its blackneſs, acquiring a mellow yellowiſh hue; then add the diſſolved butter, and continue ſtirring until the ſtick ſtand on-end. If the butter be heated too much, it is thought to injure the tar: it ſhould be barely *oiled*.

The *time* of ſalving is from Michaelmas to Martinmas.

The *method* is this: the feet of the ſheep being bound, it is laid upon a bier—provincially, a "creel"—(about ſix feet long—two feet wide in the middle—twenty-one inches toward the ends—with four legs about two feet long). The "ſalver" ſits aſtride of one end of the creel, the ſhoulder of the ſheep reſting againſt his thigh; its head under his arm.—He begins the operation by parting—provincially, "ſhedding"—the wool from the withers to the tail, leaving a ſtraight open "ſhed" or cleft in the wool the whole length of the ſheep. This cleft ought to be perfectly ſtraight and clear at the bottom; a form which practice only can give it. It is made by taking the wool on each ſide in the hands and pulling it aſunder, forming the cleft with the thumbs. The fiſſure made and the wool preſſed down flat on either ſide with the hands and wriſts, the workman takes a piece of ointment the ſize of a large hazle-nut (from a kind of diſh formed out of a block of wood in the ſhape of a cheeſe), upon the *ſide* of the end of his fore-finger, and applies

it

it to the skin of the sheep; driving it along the bottom of the shed some six or eight inches, with a degree of sleight which experience alone can teach: the perfection of the art lies in distributing the ointment evenly, and in applying it entirely to the *skin*, without fouling the *wool*, except immediately at the root. One "finger-full" being expended, another and another is applied, until the whole length of the first shed be finished; when a second cleft is made, about an inch or an inch and a half from the first. In making the second and every succeeding shed, the fingers of one hand are kept in the last-made cleft, by which means an experienced workman is enabled to make the partings exactly parallel with each other. Towards the back of the sheep the sheds are made closer to each other than they are beneath its barrel; where the wool being thinner, the scab is less liable to make its attack.

Ten or twelve sheep of the middle size are esteemed the day's work of one man. His wages, and board, fifteen to eighteenpence a-day.

The expence is thus calculated: thirty sheep take eight pounds of butter (seconds, thirds, or grease), worth on a par fourpence halfpenny a pound	3	0
One gallon of tar, costing on a par	1	0
Labour — —	3	6
	7	6

Five shillings a score, or threepence a sheep.

IV. Markets. West-Yorkshire is the principal market for Wool. Formerly, a manufactory of coarse woollen-cloth was carried on in the eastern Morelands; but at present it is almost wholly laid aside.

The following are the weights and values of the fleeces of different breeds of sheep in the District:

Moreland store ewes, one and a half pound, at 4d—6d each!

——— aged wedders fatted in the Vale, two and a half pounds, 4d—10d.

Ewes of the old Vale breed, summered on a common, four pounds, at 6d—2s.

Two-sheer wedders of the same breed, four and a half pounds, 2s. 6d.

Ewes

Ewes of the improved breed, ſummered in inclоſed grounds, ſeven pounds, at 5d—3s*.

Wool is here ſold by the *ſtone* of *ſeventeen* pounds.

The markets for CARCASES are, the market-towns in the neighbourhood, and the ports of Scarborough and Whitby.

The price of mutton in the markets of the Vale, ten years ago, was twopence halfpenny to threepence a pound. This year (1787), fourpence to fourpence halfpenny a pound.

But the moſt ſtriking evidence I have any where met with of the recent riſe in the price of live ſtock may be taken from the Moreland *ſtore* ſheep; a ſpecies of ſtock which has undergone no change whatever either by breeding or by cultivation.

The price of Moreland ſtore ewes, ten or fifteen years ago, was two ſhillings and ſixpence to five ſhillings a-head. This autumn, they were ſold for eight ſhillings and ſixpence. The price of Moreland ſtore wedders, the ſame time ago, was ſix to eight ſhillings a-head. This autumn they have been ſold for fourteen ſhillings!

* None of the ſheep from which the above fleeces were taken were ſalved.

16.

RABBITS.

THE VALE affords few rabbit-warrens. The northern margin is the only part of it adapted to this ſpecies of live-ſtock. At *Dalby* there are two pretty large warrens. At *Lockton* there is one now "planting." And there are other parts of theſe heights which might be profitably ſtocked with rabbits. In general, however, property is too much intermixed to admit of an improvement ſo ſingularly adapted to the nature of theſe high grounds.

In ſituations where the *ground* *, as well as the ſoil, is ſuitable to rabbit-warren, and where an extent of it ſufficiently large can be collected together in one property, there is a very ſtrong reaſon why it may be profitably ſtocked with rabbits.

The

* See NORF. ECON. Art. RABBITS.

The hide of a bullock (of ſome breeds) is not worth more than one-twentieth of his carcaſe. The ſkin of a ſheep may, in full wool, be worth from a ſixth to a tenth of its carcaſe. But the fur of a rabbit is worth twice the whole value of the carcaſe: therefore, ſuppoſing the rabbit to conſume a quantity of food in proportion to its carcaſe, it is, on the principle offered, a ſpecies of ſtock nearly three times as valuable as either cattle or ſheep.

This theory is ſtrongly corroborated by an incident of practice. One of the warrens of this Diſtrict contains eighteen hundred acres of ſurface; moſt of it covered with a black moreland ſoil; part of it a barren dead gravel; ſome little of it a thin limeſtone loam; not worth perhaps, on a par, *for the common purpoſes of huſbandry*, a ſhilling an acre; nevertheleſs, theſe eighteen hundred acres are let, *as a rabbit-warren*, for three hundred pounds a-year!

I will not pretend to ſay that the warren here alluded to is worth three hundred pounds a-year, nor aſſert that it is not worth a ſhilling

ling an acre to a husbandman. If it be worth two hundred and fifty pounds as a warren, and supposing it to be worth even two shillings an acre as a farm, it still is a sufficient evidence of the profitableness of rabbit-warrens, in proper situations.

As I shall, in giving a sketch of the husbandry of the WOLDS, have occasion to speak fully of this species of stock, it is needless to dwell on the subject in this place.

SWINE.

17.

SWINE.

THE HUSBANDRY of ſwine has undergone a total change in this part of the Diſtrict within the laſt thirty or forty years.

Formerly, there was ſcarcely a BREEDING ſow in the Vale. The entire ſupply of ſtore pigs was from the Wolds, through the medium of Malton market. Now, they are bred wholly in the Vale.

The BREED, too, has been totally changed. The Wold pigs were of the white, gaunt, long-legged ſort, which appear to have been formerly the prevailing ſpecies throughout the kingdom. Now, the black-ſandy Berkſhire breed is prevalent; with a mixture, here, as in other places, of the oriental ſpecies.

There is a variety of *this* ſpecies the individuals of which have two valuable properties,

ties. They are remarkably *cadiſh* and quiet; of a diſpoſition directly oppoſite to that wildneſs and ferocity which I have experienced in other varieties of this ſpecies of ſwine in different parts of the Iſland. Their other good quality is that of their *paſturing* freely: not only upon the better graſſes, but upon ſome of the more noxious weeds; particularly the dock. This is a property of ſwine, which is worth attending to by the breeders of this ſpecies of live ſtock.

The GENERAL MANAGEMENT of ſwine in the Vale has likewiſe undergone a change. Formerly the Wold pigs, which were not fatted for home-conſumption, were returned to Malton, full-grown and fleſhy, but not fat; and were there ſold to drovers; who bought them up, probably, for the diſtillers, ſtarch-makers, &c. of the metropolis. Now, the ſurplus, which is much greater than formerly, are fatted, butchered, and ſold, whole, to bacon-makers; who ſalt and dry them for the London and Weſt Yorkſhire markets.

POULTRY.

18.

POULTRY.

NOTHING ſufficiently ſtriking has occurred to me in this Diſtrict reſpecting the management or the breeds of poultry, to excite particular notice. The different ſpecies, and the management of them, are on a par with thoſe of the Iſland in general.

BEES.

19.

BEES.

THIS MAY be called a Bee-country;—eſpecially the Morelands and the northern margin of the Vale; where great numbers of bees have been uſually kept; and great quantities of honey collected; chiefly from the flowers of the heath; which afford an abundant ſupply; but the produce is of an inferior quality; brown and ſtrongly flavoured.

In hives ſituated between the heaths and the cultivated country, a ſtriking contraſt is obſervable between the ſpring and the autumnal combs. The former gathered wholly from the meadows, paſture-lands, trees, and cultivated crops; the latter entirely from the flowers of the heath; none of the ſpecies of which begin to blow until late in the ſummer.

The

The combs of the former will be nearly white as ſnow: and the honey limpid almoſt as the pureſt oil. Thoſe of the latter brown; and the honey they yield of the colour and conſiſtency of melted roſin. This difference is moſt ſtriking when the hive is carried in autumn, from the lower parts of the marginal heights, into the Moreland dales, to be filled up with honey; a practice which, ſingular as it may appear, has been followed with ſucceſs.

In the winter of 1782-3, a general mortality took place among the bees of this country. Many bee-keepers loſt their whole ſtock. I remember to have ſeen in the ſpring of 1783, twelve to fifteen empty ſtones in one garden without a ſingle ſurviving hive.

But the univerſality of the deſtruction, uncommon as it was, being ſuch as no one can remember, was not ſo remarkable as the manner in which it was effected. The bees were obſerved to dwindle away, by degrees; though they had plenty of honey in their hives; at length vaniſhing; while ſtill, perhaps,

haps, a conſiderable quantity of honey remained unexhauſted!

A man who has paid ſome attention to bees, and whoſe ideas are frequently well-grounded, was of opinion that the effect was entirely owing to the want of a ſucceſſion of young bees; under a ſuppoſition that the year preceding had not been a *breeding year*; and that the bees which dwindled away in the ſpring were the old bees dying of age.

There may be ſome truth in this opinion; the unuſually backward, and extremely wet ſpring and ſummer of 1782, might check the breeding of young bees; but it is unlikely that it ſhould wholly put a ſtop to it; and that not one hive in ten ſhould have bred a ſingle bee. For under this argument the young ones, though few, would, with an ample ſtore of honey, have ſurvived.

In the courſe of the ſpring of 1783, an incident led me to a theory which ſeems to explain the phenomenon more fully.

Being attentive to a *female* ſallow which was in blow, I obſerved that bees were equally buſy among its flowers, as they were among

among the male catkins of a neighbouring tree.

This induced me to consider the nature of the materials they collect, and to reflect on whether the different parts of generation, even in hermaphrodite flowers, may not afford them distinct materials. HONEY, it is well understood, is collected from the *nectarium*. WAX may well be considered as a collection of the viscid mucus of the *pistillum*; as BEE-BREAD appears to be merely an aggregation of the farina of the *stamen*.

It is well understood by bee-keepers in general, and is asserted by Wildman himself, that bees cannot live without *bread*. That they cannot be kept alive with *pure honey alone*, is, I believe, well ascertained. But *honey* which has been pressed hard from a comb containing *bee-bread as well as honey*, is considered as a safe and certain relief to them when their own stores are exhausted.

Admitting that bees require bread, as well as honey, to support them in winter; and admitting that bee-bread is a collection of the staminеous farina of flowers; the phenomenon under notice is easily explainable.

It is well known, that flowers are tenacious of their parts of generation in a rainy season; exposing them with caution. Nor is it mere exposure that fits the stamina for the purpose of the bee. The anthers must be burst by the sun, before the bee can load its thighs with the contained farina; which being exposed, is liable to be washed away, or shook down, by the first heavy shower. Hence the collection of BEE-BREAD, in a moist showery season, must be very precarious and inconsiderable.

But the collecting of WAX and HONEY depends less on the weather. For the flower once open, the bee has free access to the nectary and pistil, whose productions are less liable to a shower than is the farina. Besides, it is, I believe, a fact which is not doubted, that bees collect honey from what are, perhaps, improperly called honey-*dews*, as well as from flowers.

From these premisses may we not fairly draw the following conclusion?

The spring and summer of 1782 being extremely wet, (see NORF. ECON.) a dearth of

BREAD

BREAD became the natural conſequence; but through intervals of dry weather; or through a plentifulneſs of *leaf*-honey; the collection of HONEY was ſufficiently ample. While the bread laſted the bees lived. Nor did they, when it was conſumed, die at once, as when their entire ſtore is exhauſted. The honey prolonged their lives for a time; proportioned, perhaps, to their reſpective ages or conſtitutions; the individuals following each other as diſeaſe and famine overcame them; until the whole periſhed: not through a want of HONEY; but for the want of a more ſubſtantial food: *their* STAFF OF LIFE.

20.

WOLDS.

THE SITUATION and GENERAL APPEARANCE of the Yorkſhire Wolds have been given. The OUTLINE, nearly circular. Their EXTENT, about twenty-five miles diameter; containing within their ſkirts 500 ſquare miles, or about 300,000 acres.

The MATERIAL which forms the natural conſtructure of theſe hills, is probably a uniform rock of *hard chalk*; riſing, in moſt places, to near the ſurface.

The SUBSOIL in general a *chalky rubble*, of different depths and contextures, intervening between the rock and the ſoil.

The prevailing SOIL is a *calcareous loam*; varying in depth and productiveneſs.

The North-Eaſt quarter of the Wolds is covered with a thin infertile ſoil; applied to ſheep-walks; much of it being over-run with furze and heath; reſembling the inferior downs of Surrey.

On

On the contrary, a ſhallow vale which extends ſome conſiderable diſtance between Malton and Burlington; including the townſhips of Duggleby, Kirby, Lutton, Helperthorp, Weaverthorp, Foxholes, Woldnewton, &c. with a ſmall rivulet running through it (delightful ſummer ſituation!) enjoys a rich deep loamy ſoil; ſtrong enough for wheat, and chiefly under the plow.

On the higher Wolds the ſoil is a lighter loam, from ſix or eight inches to a foot deep; moſt of it well adapted to the crops of turneps, barley, and ſaintfoin; but has formerly lain, and ſtill lies in great quantity, in ſheep-walk and rabbit-warren.

The CLIMATURE of theſe hills is cold; owing in ſome meaſure to their preſent nakedneſs. The north and eaſt winds pouring in upon them from the ſea, and acroſs the Vale from the Moreland Mountains, ſweep over their ſurface without a break.

The SEASONS, here, are ſomewhat earlier than in the Morelands; but later than in the Vale, or on the Howardian hills. The per-

fect dryneſs of the ſubſtratum of the Wolds is the only advantage they have, at preſent, in reſpect to climature.

Inclosure. Formerly, the Wolds, whether parcelled out in common field, or diſpoſed in more entire properties, lay entirely open; excepting a few yards about the villages. The Eaſt-Wold-Vale ſtill lies in a ſtate of common field. But on the higher Wolds ſome ſpirited attempts have lately been made at incloſure.

Planting.—Sir Chriſtopher Sykes may, I believe, claim the honor of being the firſt ſucceſsful planter upon the Wolds. Attempts had formerly been made; but without ſucceſs: owing, perhaps, more to the *ſmallneſs* and the *thinneſs* of the plantations than to any other miſmanagement.

Sir Chriſtopher, I am well informed, is now contracting, or has contracted with a nurſeryman for upwards of five hundred acres of planting; to be finiſhed in ten years: an undertaking which muſt do him infinite credit.

It is, perhaps, to be regretted, that Sir Chriſtopher's plantations conſiſt chiefly of the *pinus-tribe*; moſtly of Scotch Fir; the

moſt

moſt worthleſs of timber-trees. As a ſkreen to better plants, it may, in bleak ſituations, have its uſe.

But the BEECH, to which the ſoil of the Wolds is peculiarly adapted, would be more acceptable to poſterity; and would afford much greater ornament to the Wold Hills. If raiſed from the maſt, with due care, there can be no doubt of its ſucceeding on theſe Hills. The Welch mountains abound with it in their bleakeſt aſpects.

Other gentlemen are raiſing SKREEN PLANTATIONS, and LIVE HEDGES, in a moſt ſpirited manner.

In one inſtance, I obſerved three rows of hedge-wood planted; about two feet apart; and defended by a row of poſts and rails on either ſide: the bank in which the poſts ſtand appearing to have been formed of the ſubſtratum of chalk rubble; a ſlip of ſoil on either ſide being thrown in between the rails, to give encouragement to the hedge-plants. In other inſtances, the ſoil has been cleanſed by a turnep fallow *. The plants, when I ſaw them, were vigorous, and in high preſervation.

* Nevertheleſs, a ditch is, I believe, invariably ſunk on one ſide. Gathering the cultivated ſoil into one

The inclosures, as yet, are mostly large: forty or fifty acres. But should the spirit of planting continue to diffuse its influence over these hills, the size of inclosures will in time be lessened. Should a time arrive when the higher swells shall be crowned with wood, and the intervening vallies be intersected with living fences; forming inclosures of eight or ten acres; the climature of the Wolds will be rendered some degrees of latitude more genial than it is at present; and the productiveness of the soil be doubly that which it has hitherto been.

In giving A SKETCH OF THE RURAL ECONOMY OF THE WOLDS, the following particulars will be entitled to notice:

1. Estates.
2. Farms.
3. Tenure.
4. Rent.
5. Removal.
6. Building.
7. Objects of Husbandry.
8. Succession.
9. Manual Labour.
10. Team Labour.
11. Implements.
12. Manure.
13. Harvesting.
14. Farm-yard Management.
15. Markets.
16. Turneps.
17. Sheep.
18. Rabbits.

I. ESTATES.

one evenly round wide ridge, would, I apprehend, be found much more eligible upon the Wold soil.

I. ESTATES. The lands of the Wolds belong chiefly to *large owners*; being moſtly occupied by tenants; few of them, I believe, being in the hands of yeomanry; as they are in the Vale, and a great part of the Morelands.

II. FARMS. Many of them very large. *Mowthorp* and *Coldham*, near two thouſand acres each; *Crome* thirteen or fourteen hundred acres; all of them charming arable farms; ſuch as would *(if properly ſheltered)* let in Norfolk for fourteen or fifteen ſhillings an acre.

III. TENANCY. Upon the larger farms *leaſes* are become common. Some of *ſeven years*; which is conſidered as too ſhort a term: ſome *fourteen*, which good tenants ſeem to be fully ſatisfied with.

IV. RENT. Upon the larger farms ſix to twelve ſhillings an acre. The rent depends chiefly on whether the tenant has or has not liberty *to break up old ſheep walk*, with which the larger farms moſtly abound. Theſe lands in a ſtate of *ſward* may not be worth more than five ſhillings an acre. But having lain, perhaps a ſucceſſion of ages, in a ſtate of graſs,

graſs, they are many of them, for a courſe of years, worth five times that rent as *arable land.*

No wonder landed gentlemen are tenacious of theſe old graſslands. They are treaſuries, whoſe keys they would be blameable in delivering up, without a ſuitable conſideration. But they are ſtill more culpable in obſtinately depriving themſelves and the community of the uſe of them. The fineſt farm upon the Wolds is ſhamefully cramped, through an ill-judged prohibition from breaking up the ſheep-walks, of which it principally conſiſts. The tenant cannot winter his ſheep upon the farm. He has not a ſufficiency of arable land to grow turneps in proportion to his ſummer feed. It is not paying twenty pounds a-week for ſheep-feed which conſtitutes the evil in this caſe; but the circumſtance of having his flocks ſcattered about the country, perhaps ten or fifteen miles from his farm, during the winter months.

A *general* permiſſion for breaking up can only be dictated by folly or neceſſity. A due *proportion* is all that is *at preſent* requiſite.

V. REMOVALS.

V. REMOVALS. The *time* of changing tenants is Ladyday or Mayday. On large farms moſtly Ladyday; the wheat on the ground being valued by referees. On ſmall farms, Mayday; the ſpring crops being likewiſe ſown by the outgoing tenant, and valued with the wheat by referees.

VI. BUILDINGS. A number of new farmeries have of late years been erected upon the Wolds. The plan of *ſome* of them ſimple and eligible. The dwelling-houſe to the weſt; barns and ſtable on the north; ſtack-hovels, for cattle and implements, on the eaſt; forming a ſquare ſtraw-yard, open to the ſouth; ſaving a high brick-wall, with tall boarded gates; altogether well-adapted to the bleakneſs of the ſituation. At the top of Garton hill the dwelling-houſe is ſimple and ſnug; becoming its uſe and ſituation; with low leantos; enlarging the roof, for the purpoſe of collecting rain-water: a plan which ought to be univerſally adopted on theſe bleak and waterleſs hills *.

VII. OBJECTS

* For obſervations on the Wold PONDS, ſee the Art. *Drinking Pools.*

VII. Objects of Husbandry. 1. Stock, principally, *ſheep* and *rabbits*. Few *cattle*, except what are purchaſed in autumn for the purpoſe of raiſing manure, being ſold off in the ſpring; chiefly to the graziers of Lincolnſhire. Some *horſes* are bred; but the more general practice is to buy in colts at a year old, and keep them until they be three or four; ſelling them at that age to country dealers; or keep them till five years old, and make them up for the horſe-ſhows. 2. Crops. Principally *oats*; but much *barley* and ſome *peas* are grown; and, in the vallies, *wheat*. But, upon the high wolds, the largeſt farmers, until of late years, bought their bread-corn. The old turf, when newly broken up, throws out immenſe crops of oats; and is, I believe, in general, equally productive of *rape*. Inſtances are mentioned, in which the firſt crop of rape has been equal to the purchaſe-value of the land. *Turneps*, *clover*, and *ſainfoin*, are alſo Wold-crops.

VIII. Succession. No regular ſyſtem of management, with reſpect to the ſucceſſion of crops and fallow, is in any part of the Wolds

Wolds to be found in general practice. Upon the thinner-soiled swells the prevailing practice is to break-up, by sod-burning, for turneps; oats two years; barley and grass-seeds, letting the land lie down again to grass. In the vallies, where wheat is grown, turneps, barley, clover, wheat, has of late years gained some footing.

IX. Manual Labour. The Wolds are thinly inhabited. The resident labourers are few, compared with the work to be done; especially in harvest; when numbers flock to it from the surrounding country. In less busy seasons, the work is done mostly by yearly servants; the few labourers there are being, in winter at least, chiefly employed in thrashing: for which employment the cottagers are sometimes hired by the winter half-year. The wages for thrashing sixpence to eightpence a-day, and board; or fourpence to fivepence, a quarter of oats, and board. The Wold farmers, generally speaking, board all their work-people.

X. Team Labour. The beasts of labour, principally horses, of the saddle or the coach-horse breed. A few oxen are sometimes used about home.

The

The method of using draught-horses upon the Wolds is singular; whether they be applied to the waggon or the plow.

The Wold waggon is furnished with a pole, similar to that of a coach; and the horses applied in a similar manner as coach-horses. Four horses are the usual team; the driver, on ordinary occasions, riding on the near-side horse behind; generally trotting with the empty carriage.

At plow, the same four horses, in the same harness, are, in strong work, invariably used without a driver! the plowman guiding them with reins: a practice which is, perhaps, peculiar to the Yorkshire Wolds. In lighter work, as in stirring a fallow, two horses only are used.

But, in this case, a practice equally singular is prevalent. A third horse, drawing a light harrow, is fastened on the off side of the plow-horses; the plowman driving the three.

This in breaking up turnep-grounds, or in other *spring* fallowing, is a good practice on dry land; which, by this means, is got perfectly fine at a small expence (the harrow in

in this case being usually drawn by an old worn-out horse, or by a two or three-year-old colt), and immediately as it is plowed, by which means the seed-weeds have full time to spend themselves. But in *winter* and in *summer* the practice is pernicious. A fallow cannot lie too rough in those seasons.

The *hours of work* are long. In spring seed-time, the plow-teams will sometimes stay out from six to six; the plowmen having their dinners carried to them in the field; the horses remaining all day without a bait, and with only a small allowance of corn when they reach the stable! nevertheless, in light work and in a busy season, each horse plows near an acre a day. What breed of *black* horses can stand hardships like these.

XI. Implements. The *waggons* high and awkward. The *plow*, of the old straight mould-board construction. Both of them call loudly for improvement. The *turnwrest plow* is much wanted upon the Wolds.

XII. Manure. *Yard dung* and *sheep-teathe* are the principal manures. *Soot* and some *lime* are also in use. *Rape-cake* would, perhaps, be found a valuable manure upon the Wolds.

XIII. Har-

XIII. HARVESTING. All oats and barley, and much wheat, are mown againſt the ſtanding-corn, bound in ſheaf, and ſet up in ſtooks, at the time of mowing. The Wold farmers follow this practice, as being leſs tedious than that of gaiting, as in the Vale (ſee Art. VEGETABLE-PROCESS), and leſs waſteful than that of harveſting looſe, in the South-of-England manner.

XIV. FARM-YARD MANAGEMENT. Straw is all conſumed in open yards; chiefly in double racks ſupported by four legs. No cattle faſtened by the head; nor any ſtraw (except wheat-ſtraw) bound.

The ſtraw-yard ſtock is chiefly aged oxen of the ſhort-horned breed, bought at Stanford-bridge and other fairs in autumn; and ſold in ſpring to jobbers or graziers, who ſometimes buy them up in winter, on ſpeculation, to be delivered in ſpring. They leave about twenty ſhillings a-head for wintering. But much depends upon judgement in buying them in.

XV. MARKETS. *Malton* and *Driffield*, both of them NAVIGATION-TOWNS, and *Burlington*, a SEA-PORT, are the principal markets for

corn.

corn. The Derwent being made navigable many years before the navigation of the Hull was extended to Driffield, Malton was once the principal market. But, at preſent, Driffield, an improving place, takes the lead. At Malton, the corn-trade is in the hands of a few *merchants*, who can generally make their own price. At Driffield, the buyers are numerous, and moſtly *factors*, who purchaſe by commiſſion. By the low commiſſion of ſixpence a quarter, ſome of the factors are ſaid to make three or four hundred pounds a-year; a ſtriking evidence this of the great quantity of corn which is grown upon theſe Wolds.

XVI. Turneps. The turnep-crop may be ſaid to be ſtill a new thing to the Wolds; not more than of twenty years ſtanding, though ſingularly adapted to the ſoil; and notwithſtanding it has in Norfolk, whoſe coaſt may almoſt be ſeen from theſe hills, been an eſtabliſhed object of culture more than a century!

At preſent this crop is in full eſtimation, being conſidered as the moſt ſolid baſis of Wold-huſbandry.

Turneps generally *succeed ſward, ſodburnt, once plowed* very fleet; or perhaps only rice-balked. No *manure*, and only *once hoed*.

This at firſt ſight may appear to be a looſe mode of culture; but not ſo if we duly conſider its baſis.

If the turf be of a good age, and the ſoil of a tolerable quality, no other manure than its aſhes is required; and ſward which has been ſodburnt and only once plowed is much leſs liable to foul the crop with weeds than land which has been under tillage. Upon the whole, it appears to me to be a practice well-adapted to the Wolds, where old ſward is abundant, and where extraneous manures are difficult to be procured.

The *application* of the turnep-crop is almoſt wholly to ſheep, which are folded upon the *ſtanding turneps*; a practice which cannot be defended (ſee NORF. ECON. Vol. I. p. 297.) and with only *one flock*; a practice which is ſtill more cenſurable. It is no wonder that the Wold ſheep at turneps ſhould be ſubject as they are to *diſorders:* to-day ſatiated with the tops and the beſt of the pulp; to-morrow pining over the ſhells, with only half their fill;

fill; and part of what they pick up weeds and dirt. The next day glutted with a flush of fresh turneps.

If turneps be eaten up *clean*, a *head flock* and *followers* are indispensably necessary to common good management. If it be requisite to eat off turneps with *one* flock of *fat* sheep, one-third of the crop at least ought, in like management, to be left on the ground as manure.

The *fence* of the *sheep-fold* is generally of NET-WORK, made of small cord; the size of the meshes four to six inches; the width or height of the fence about three feet; supported by stakes eight or ten feet asunder. The cost fourpence to fourpence halfpenny a yard. But "net-hurdles" are more commonly *hired* (of rope-makers) than purchased. The price a shilling to eighteenpence a-week for a hundred yards. About home, "bar-hurdles" are sometimes used, but nets, being lighter carriage, are generally used at a distance. For sheep which are hornless, as the Wold sheep invariably are, netted folds are very eligible.

XVII. SHEEP. The *flocks* of the Wolds are ſome of them very large. One, at leaſt, ſo high as two thouſand; eight or nine hundred of them ewes; the reſt wedders and yearlings.

The *breed* is a variety of the long-wooled ſpecies. Some of them very handſome, reſembling the preſent breed of Leiceſterſhire, but more active. The wedders will fat at two-ſheer (that is, two to three years old) to thirty pounds a quarter. Clip about ſix pounds of wool: the length ten to thirteen inches.

Some years ago a *croſs* of this breed with the large breed of Lincolnſhire, was introduced upon the Wolds, to the no ſmall loſs of ſome of the Wold farmers. One of them calculates to have loſt ſeven hundred pounds by a diſorder in the head, called the "megrims," which this ill-judged croſs were ſubject to. He returned again to the Wold breed, and the diſorder left his flock.

Every country appears to have a naturalized ſtock—of ſheep at leaſt—belonging to it. By neglect this ſtock will degenerate.

By

By care it may be improved; either by the faireſt of its own individuals, or by thoſe of a *kindred variety*; not by a *foreign ſpecies*.

XVIII. RABBITS. The Wold warrens are numerous, and ſome of them very extenſive. COLDHAM-WARREN is at preſent, I believe, the largeſt upon theſe Wolds; and, probably, the moſt valuable warren in the Iſland. The Coldham *farm* contains about nineteen hundred acres; and, ſpeaking generally, it is all *warren:* not, however, wholly appropriated to *rabbits*, a flock of ſix to eight hundred *ſheep* being kept within the warren-walls; principally, however, on one ſide of the warren, away from the burrowing-grounds.

This appears to be a practice peculiar to the Wolds *, where better ſoil is appropriated to rabbit-warren than is perhaps in any other part of the Iſland. The Coldham-warren, in point of *ſoil*, is moſt of it worth ten to twelve ſhillings an acre; ſome of it fifteen or ſixteen ſhillings †. As theſe better

* Of Yorkſhire and Lincolnſhire, whoſe hills likewiſe abound much with rabbit-warren.

† But the preſent bleakneſs of the *ſituation* renders it of little more than half the value.

parts become moſſy, they are incloſed by a ſod-wall, the ſurface pared and burnt, and the ſoil broken up for arable crops. Having afforded a ſucceſſion of crops of corn, turneps, &c. they are ſown with graſs ſeeds, and again thrown open to the rabbits and ſheep.

In 1783 there were about two hundred acres of this farm under the plow, beſides ſome little ſheep-walks, which lay without the warren-walls. The *warren* therefore at that time contained fifteen to ſixteen hundred acres: and adjoining to Coldham are two more conſiderable warrens; ſo that there are perhaps three or four thouſand acres of tolerably good land, lying together, and appropriated principally to rabbits; a circumſtance which it would be difficult to equal.

To give a general idea of the MANAGEMENT of the WOLD WARRENS, the following diviſion of the ſubject will be requiſite:

1. Soil.
2. Burrows.
3. Fences.
4. Species.
5. Taking.
6. Markets.

1. SOIL.

1. Soil. There is a diſadvantage in ſtocking a *rich* ſoil with rabbits: a fluſh of graſs, after a dry ſeaſon, is found to throw them into a ſcouring; which ſometimes carries off great numbers.

2. Burrowing-ground. Upon the high Wolds the burrows are moſtly on the *ſides of hills:* at Coldham, principally in one deep valley; whoſe ſides are ſteep, giving the rabbits great freedom in working. The ſoil in this caſe about eight or ten inches deep; under this a chalky rubble of ſome inches thick, lying on a chalkſtone rock. The burrows are in the ſubſoil, between the ſoil and the rock, and chiefly toward the tops of the hills *.

But at Driffieldgreets, near Driffield, where there are two large warrens, the ſurface is a *dead flat*; nevertheleſs the warrens are well-ſtocked and productive; a proof that a flat ſurface may, in ſome caſes, be profitably ſtocked with rabbits. The ſoil, in this caſe, a light ſand or gravelly loam.

* Thouſands of daws build their neſts in theſe burrows, to the great annoyance of the rabbits.

In ſtocking a warren, whether the ſurface be flat or hilly, ARTIFICIAL BURROWS are made to reconcile the rabbits to the ground, and to preſerve them from vermin until they have time to make their own burrows. In making theſe artificial burrows, an improvement has lately, I believe, been hit upon. They are bored with an AUGER of a diameter large enough to make a burrow of a ſufficient width. In a level warren, theſe AUGERS may from time to time be found uſeful.

3. WARREN-FENCES. The common fence upon the Wolds is *ſodwall*, capped with furze, or of late with ſtiff ſtraw, forming a kind of thatch *. The warrens near Driffield are fenced with *paling*; an expenſive fence in the outſet, and always under repairs. A *brook*, though ever ſo deep, is found to be inſufficient as a fence againſt rabbits: one ſide of Driffieldgreets-warren is bounded by a brook; but it is nevertheleſs fenced with paling. When the rabbits can evade this, they readily ſwim the brook.

4. SPE-

* Reed would be admirable in this intention; and might perhaps be had at a reaſonable coſt from the fens of Holderneſs, or thoſe at the foot of the Vale of York.

4. Species of Rabbits. Until of late years, the common *grey* rabbit—probably the native wild rabbit of the Iſland—was the only ſpecies. At preſent, the *ſilver-haired* rabbit is ſought after, and has, within the few laſt years, been introduced into moſt warrens †. The ſkin of the grey rabbit is *cut*; that is, the "wool" is pared off the pelt as a material of *hats*: whereas that of the ſilver-haired rabbit is *dreſſed* as *fur*; which, it is ſaid, goes principally to the Eaſt-Indies. The colour, a black ground, thickly interſperſed with ſingle white hairs. The ſkins of this variety ſell for about four ſhillings a-dozen more than thoſe of the common ſort; a ſufficient inducement this for propagating it.

5. Method of taking Rabbits. The Wold-warreners have three ways of catching their rabbits:—with *fold-nets*—with *ſpring-nets*—and with "*tipes*;" a ſpecies of *trap*.

The *fold-nets* are ſet about midnight, between the burrows and the feeding-grounds; the rabbits being driven in with dogs, and kept incloſed in the fold until morning.

The

† Some of the Lincolnſhire warrens, it is ſaid, are already wholly ſtocked with this variety.

The *spring-net*, when uſed, is, I believe, generally laid round a hay-ſtack, or other object of inducement for rabbits to collect in numbers.

The *trap* is a more modern invention. It conſiſts of a large pit or ciſtern, formed within the ground and covered with a floor; or with one large falling-door, with a ſmall trap-door toward its center, into which the rabbits are led by a narrow muce.

This trap, on its firſt introduction, was ſet moſtly by a hay-ſtack—hay being at that time the chief winter-food of rabbits; or on the outſide of the warren-wall, where rabbits were obſerved to ſcratch much, in order to make their eſcape. Since the cultivation of turneps as a winter-food for this ſpecies of ſtock has become a practice, the ſituation of the trap has been changed.

Turneps being cultivated in an incloſure within the warren, a trap is placed within the wall of this incloſure. For a night or two the muce is left open and the trap kept covered (with a board or triangular rail), in order to give the rabbits the requiſite haunt of the turneps; which having got, the trap is bared, and the required number taken.

In

In emptying the ciſtern the rabbits are *ſorted:* thoſe which are fat and in ſeaſon are ſlaughtered; thoſe which are lean or out of condition are turned upon the turneps to improve.

At the cloſe of the ſeaſon the bucks and the does are *ſorted* in a ſimilar way: the bucks are ſlaughtered; the does turned looſe to breed. One male, I underſtand, is conſidered as ſufficient for ſix or ſeven females; and the nearer they can be brought to this proportion, the greater ſtock of young ones may be expected; it being the nature of the males (*unnatural* as it may appear) to deſtroy their young, more eſpecially perhaps when their proportional number is too great.

Great precaution is requiſite in the uſe of theſe traps. If too many rabbits be admitted at once, and the ciſtern be kept cloſe covered only for a few hours, ſuffocation and inordinate heat take place, and the carcaſes, at leaſt, are ſpoiled. Many thouſand carcaſes have been waſted through this means—The traps are therefore watched; and when the required number are caught, the muce is ſtopped, or the trap covered.

Some

Some idea of the *produce* of the Wold-warrens may be gathered from the great numbers which are frequently ſlaughtered at once. Five or ſix hundred couple have not unfrequently been ſlaughtered in one night: and, *it is ſaid*, that when the two Driffield warrens lay together, there was once an inſtance of fifteen hundred couple being killed at one ſlaughter.

6. MARKETS FOR RABBITS. York, Hull, and the neighbouring towns, for carcaſes: Stanford-bridge and Malton, for ſkins; which are cut by furriers who reſide at thoſe places, and who find a market for their wool in the hat-manufactories of London and Mancheſter.

Sometimes the ſkins and carcaſes are ſold together, to huckſters, or other wholeſale dealers. The average price for the ſeaſon about two ſhillings a couple. The price of carcaſes, in the neighbourhood of the warrens, eightpence to tenpence a couple.

HOL-

21.

HOLDERNESS.

THIS IS the only Diſtrict of the county I have not been in. I have repeatedly looked over its ſurface, and been upon its borders; but never went over its area. I purpoſed to have gone over it this year (1787), but the Vale employed my whole attention during ſummer; and the extreme wetneſs of the autumn would have prevented me from viſiting a fen country at that ſeaſon, had leiſure permitted it.

The objects of huſbandry, and the means of obtaining them, are, I have always underſtood, ſimilar to thoſe of the Vale of Pickering: nevertheleſs, Holderneſs may have its partial excellencies; as almoſt every Diſtrict has, in a greater or leſs degree.

The

The north-weſt quarter is appendant to a line of marginal villages; ſituated moſt deſirably on the ſkirts of the Wold hills; but no way excellent, I believe, in their plan of management. Nevertheleſs, the *coaſt* of Holderneſs may merit ſurvey.

CLEVELAND.

22.

CLEVELAND.

CLEVELAND is ſmall, comparatively with the other Diſtricts of Eaſt Yorkſhire. To the eaſt it terminates in a broken country; mixing with the northern margin of the Moreland hills.

The OUTLINE, if the broken country about *Giſborough* be cut off, is nearly oval. The EXTENT of the greater diameter being about fourteen, of the ſhorter about ten miles; containing within its area ſomewhat more than one hundred ſquare miles; or about ſeventy thouſand acres.

The SURFACE is nearly plain, but perfectly free from collected water; its principal brook the Leven, running in a valley ſome feet below the general ſurface.

The SOIL, almoſt invariably, a tenacious clay. Good wheat and bean-land.

The

The OBJECTS OF HUSBANDRY are *corn*, *butter*, *bacon*, *rearing cattle*, and *horſes*; varying but little in its objects from the VALE OF PICKERING; excepting that CLEVELAND is more a *corn country*.

A uniformity of ſituation and ſoil is generally productive of a uniform ſyſtem of management; more eſpecially in a country like Cleveland, which has been long in a ſtate of incloſure; and a minutial detail of its *arable proceſs* might be intereſting. But the Vale of Pickering having furniſhed materials more ample and more intereſting than I expected, I have beſtowed on that alone more attention than I had ſet apart for the county.

Some peculiarities of the Cleveland practice have been already mentioned. One which marks it ſtrongly, and which diſtinguiſhes it from every other Diſtrict I have obſerved in, remains to be noticed.

The TEAM of Cleveland is, invariably, *three horſes and a cart*. Notwithſtanding the deepneſs of the roads in a wet ſeaſon, there is ſcarcely a *waggon* or a *long team* in the country. The three horſes are, invariably, drawn

drawn two-and-one; namely, one horſe in the ſhafts; the other two in a pair before it: the whole being guided by leathern reins, and driven with a long-thonged whip, in the coach manner.

This practice has probably ariſen from the circumſtance of coals and lime being fetched into Cleveland from diſtant parts of the county of Durham. The latter, which has long been the ſheet-anchor of the Cleveland farmers, is drawn, into the interior parts of the Diſtrict, more than thirty miles; the teams going and returning without a reſt, excepting tranſient baits upon the road.

The rule, when going empty, is to trot two miles and feed one; the driver riding in the carriage the two miles, and walking by the ſide of his horſes the one; baiting them with hay, out of his hand, as they go along the road. When loaded, he keeps feeding whenever he finds the horſes will eat a mouthful of hay. Corn is alſo carried in theſe journies, and given in bags hung upon the horſes' heads; in the manner in which hackney coach-horſes are fed upon the ſtands

in London. Horſes thus uſed will ſtand travelling thirty miles every day. The breed, ſtrong, active, coloured coach-horſes.

The Cleveland team treads the road evenly; and is the ſtiffeſt; the moſt handy; and, for a *level country* and *long journies*, is, perhaps, altogether the moſt eligible team invention can ſuggeſt.

MORELANDS.

23.

MORELANDS.

THE SITUATION of this Diſtrict was given in deſcribing the COUNTY at large. And, in giving a more minute deſcription of the Vale of Pickering, the Morelands are mentioned as bleak mountains, covered with heath, and interſected by CULTIVATED DALES. Theſe dales have been already noticed as appendages of the Vale; ſo far as they are noticeable. What I propoſe under the preſent head, is to give ſome account of the MOUNTAINS and their UNCULTIVATED VALLIES.

The CLIMATURE of the Morelands is extremely bleak; ſeveral degrees of latitude colder than the Vale of Pickering; where rain, or perhaps open weather, will frequently prevail, while the Morelands are covered with ſnow.

The EXTENT of the Eaſtern Morelands, including the hills of HAMBLEDON, is thirty to forty miles of length, by ten to fifteen

of breadth. Excluding the CULTIVATED DALES, &c. they may contain from three to four hundred ſquare miles, or from two to three hundred thouſand acres, of UNCULTIVATED HEATH.

The MATERIALS of theſe mountains are principally *free-ſtone*, (of a ſingularly fine grain) which too frequently riſes to the ſurface; lying in ſome places above-ground in blocks; ſome of them of conſiderable ſize. A thin ſeam of *coal* has been found, and ſtill continues to be found, in different parts of theſe hills, at no great depth from the ſurface. *Iron* is forged near Ayton; and *copper* has been ſmelted near Hackneſs. But *allum ſhale* is the moſt valuable material of the eaſtern Morelands; which alone, I believe, furniſh the Iſland, and a great part of Europe, with allum.

The immediate SUBSOIL is generally *ſand*; which, *in ſome places*, is formed into a pan or cruſt; reſembling ruſty half-decayed iron rather than an earthy ſubſtance: being almoſt as impervious by water as an iron veſſel.

The

The SOIL invariably a *black moor*;—apparently a mixture of vegetable mould and ſand; reſembling the moory ſoil of fens.

Linneus, I think, calls this ſpecies of ſoil the *depauperated* ſoil of heaths; but on what grounds I know not. The moor of fens appears obviouſly enough to be compoſed of the decayed roots and other parts of vegetables, with a greater or leſs proportion of ſand and mud, waſhed in among them while in a ſtate of growth. But how a ſimilar matter could be formed on the tops of mountains is leſs obvious. Nevertheleſs MOUNTAIN MOOR has every appearance of a VEGETABLE MOULD.

This mould, which covers a principal part of the mountains of the Iſland, appears to me a moſt intereſting ſubject of inveſtigation.

It varies greatly in regard to depth. On the "low moors," where it has probably been repeatedly pared off for fuel, it barely covers the ſand or gravel of the ſubſoil: but upon the higher more diſtant ſwells the covering of ſoil is thicker; frequently from one to two feet deep of what is called "fat moor." In the vallies, particularly towards their heads, are peat bogs of ſeveral feet deep;

buried in which, trees of great size have sometimes been found.

The NATURAL PRODUCE of the more lofty swells of these mountains—termed provincially, the "high moors"—is principally *heath*, interspersed with patches of "*bent*;" (a species of *rush*;) together with the common rush and other aquatics in the vallies, and on the bogs, with which even some of the swells abound.

But at the feet of those swells; and on the face of the cliffs which terminate them to the south; as well as upon the top of the marginal heights; which, when they shoot far to the northward, as between Newton and Coldthorn, are covered with black soil and heath; —a number of the better grasses, with a variety of other plants, may be found growing among the heath, notwithstanding the situation, which, in point of bleakness, is little inferior to the "Moorheads."

A list of these hardy plants may have its use.

Provincial.	*Linnean.*	*English.*
Common ling,	—*erica vulgaris*,	—common heath.
Crow-ling,	—*erica cinerea*,	—fine-leaved heath.

Wire

Provincial.	*Linnean.*	*Engliſh.*
Wire ling,	*erica tetralix*,	croſs-leaved heath.
Bent,	*juncus bulboſus ?*	heath ruſh.
Scaves,	*juncus effuſus*,	ſoft ruſh.
Moor palms,	*carices*	ſedges.
Gale,	*myrica gale*,	ſweet gale.
Juniper,	*juniperus communis*,	common juniper.
Cranberry,	*vaccinium oxycoccos*,	cranberry.
Bleaberry,	*vaccinium myrtillus*,	common whortleberry.
White clover,	*trifolium repens*,	creeping trefoil.
Cheeſe-cake graſs,	*lotus corniculatus*,	birds-foot trefoil.
Bent graſs,	*nardus ſtricta ?*	mat graſs ?
	aira fluxuoſa,	heath air-graſs.
	aira cærulea,	purple air-graſs.
	aira præcox ?	early air-graſs * ?
	anthoxanthum adoratum,	vernal.
	briza media,	trembling-graſs.
	cynoſurus criſtatus,	creſted dogs tail.
	feſtuca duriuſcula,	hard feſcue.
	feſtuca myurus ?	wall feſcue ?
	lolium	

* It was late in ſummer before I made this collection. Some of the early plants had ſeeded, and their ſpecific characters were of courſe become doubtful.

Provincial.	*Linnean.*	*Engliſh.*
	lolium perenne,	—ray-graſs.
	dactylis glomerata,	—orchard-graſs.
	holcus mollis,	—couchy ſoft-graſs.
	euphraſia officinalis,	—common eye-bright.
	orobus tuberoſus,	—bulbous pea.
	galium verum,	—yellow bedſtraw.
	galium montanum ?	—mountain bedſtraw ?
	ſcabioſa ſucciſa,	—meadow ſcabious.
	rumex acetoſella,	—ſheep's ſorrel.
	prunella vulgaris,	—ſelf-heal.
	tormentilla erecta,	—common tormentil.
	potentilla reptans,	—common cinquefoil.
	ciſtus helianthemum,	—dwarf ciſtus.
	thymus ſerpyllum,	—wild thyme.
	poterium ſanguiſorba,	—upland burnet.
	ſpiræa filipendula,	—dropwort.
	achillea millefolium,	—milfoil.
	hypericum perforatum,	—common Saintjohnswort.
	carlina vulgaris,	—carline thiſtle.
	*carduus paluſtris * ?*	—marſh thiſtle ?
	pteris aquilina	—brakes.

The STOCK of the Morelands is principally *ſheep*. Upon the "high-moors" they are the only ſtock. On the lower borders, and on the margins of the cultivated dales, young *cattle* are kept upon them a conſiderable part of ſummer. But, in a general light, SHEEP may be taken as the ſtock of the Morelands; and though they be thinly ſtocked, the number on the whole is conſiderable.

In ſtocking theſe mountains with ſheep, the general calculation is, I believe, one ſheep to ten acres. The number therefore kept, on the foregoing calculation, is twenty to thirty thouſand.

Theſe ſheep live entirely upon the "moor," from their being a year old until the time of their being ſold off; which, formerly, was not until they were four or five years old.

The yearly profit of a Moreland ſheep (very ſmall, ſee ART. SHEEP), allowing for attendance

* This thiſtle has no other ſpecific difference which I have been able to diſcover, from the *carduus paluſtris*, except the thickneſs of its ſtem; which, upon theſe dry barren bleak hills, will ſometimes be equal in ſize to the largeſt walking-cane. There is a variety of it with white flowers.

attendance, hazard *, salving, and a little hay in winter when the heath is buried in snow, may be laid at two shillings and sixpence a-head †.

Consequently the YEARLY PRODUCE OF THE HERBAGE, at present, is THREEPENCE AN ACRE; at which rate much of it was valued by the Commissioners under the Pickering Bill of Inclosure ‡.

The IMPROVEMENTS which have been attempted among these hills require now to be mentioned.

The

* A Moreland farmer reckons that if half the number he breeds reach a market he has tolerable luck.

† This calculation is made on the advanced price which sheep have borne, on a par of the last ten years. There are who assert that if attendance were rigidly calculated, no neat profit whatever would arise from keeping sheep on these heaths. But the number of *little fortunes* which have been made in the Moreland dales, principally, it is believed, by keeping sheep, contradict this assertion.

‡ Besides the *herbage*, the *fuel* which is pared off the surface and cut out of the bogs, may be considered at present as a species of PRODUCE.

The Pickering highmoor allotments, containing twenty acres or upward, are now selling for ten pounds each. The fee-simple of three of these allotments, containing near one hundred acres, were purchased the other day for thirty pounds.

The late SIR CHARLES TURNER ranks higheſt as an improver of the Morelands. But Sir Charles's ſite of improvement is not a fair ſpecimen of the two hundred thouſand acres of uncultivated heath which are the immediate ſubject of this article.

Keldale, the principal ſite, is a valley iſſuing out of Cleveland. The bottom, which has formerly been incloſed, is a rich loam of great depth; but had been rendered unproductive for want of draining. The ſides of the valley are variouſly ſoiled; moſtly bog, or a fat moory ſoil, formed probably by ſprings, with which the whole valley abounds, and which having trickled down its ſides from age to age, have clad them in vegetable mould. Keldale, at the time Sir Charles undertook its improvement, was a *neglected valley*, whoſe *ſoils* were full of *intrinſic riches*, and required nothing but an improvement of their *ſubſoil* to render them highly productive.

Had the improvements of this valley been ſet about with deliberation, and carried on with judgement and firmneſs, the profits ariſing from it would have been exceedingly great. Even in the eccentric way in which they

they were conducted, the improvement must have greatly exceeded the expence. In the spring of 1783, when I saw them, Sir Charles had let off one farm of one hundred and fifty pounds a-year (containing about one hundred and fifty acres!) and had then built, or was building, three or four more substantial farm-houses.

Kempswidden, the other site of Sir Charles's improvements, is more nearly allied to our present subject. This is a high ridge of mountain which forms one side of the valley of Keldale. The soil, partly black moor; in part, of a brown loamy nature; altogether, much superior in natural quality to the "high-moors;" and equal, if not superior, to any extensive plot of uncultivated heath on *this* side of the Morelands.

In 1783, the principal part of this hill had been inclosed with stone-walls; and part of it had, in the outset, been unfortunately broken up for *corn*. But the rich loams of Keldale being found to be better adapted to arable crops, this was prudently laid down to *grass*; a species of crop much better suited than corn to such a soil, in such a situation.

The

The incloſing of Kempſwidden was evidently premature. Had Sir Charles begun at the bottom of Keldale; climbing by degrees up its ſides; reaching in due proceſs of time the tops of the hills; what amuſement and profit might have been reaped from the undertaking!

The ATTEMPTS which have been made on this ſide of theſe mountains remain to be noticed.

About twenty years ago the incloſure of MIDDLETON, whoſe pariſh extends into the Morelands, gave freedom to the ſpirit of improvement.

The *ſite* which was principally choſen for the eſſays which have been made, were the lower ſkirts of the Moreland hills, under the northern ſteep of the limeſtone heights. This ſituation was in a degree of ſhelter, was near the cultivated country, and the ſoil in that valley is better than it is higher up the ſides of the hills.

The *principle of improvement* was to extend the cultivated country into the Morelands. *Corn* was of courſe the main object. The *heathy waſtes* were conſidered as *graſs-commons*;

mons; which uſually are, and generally ought to be, converted into *arable land*, and kept in that ſtate for a courſe of years after their incloſure.

The *method of breaking-up* was either by paring and burning, or by fallowing; which latter was performed in a ſingular manner. The heath being previouſly ſinged off, the land was plowed, and ſuffered to lie unſtirred in rough furrow for *two years*, in order to give the roots of the heath time to rot. The *third year* it was ſtirred as a *fallow*; and the *fourth year* cropped.

The *manure* uſed, invariably lime; which is burnt in quantity near the ſite of improvement. The quantity ſet on, three to ſix or ſeven chaldrons an acre.

The *crops* wheat, rye, oats, potatoes, turneps. Red-clover, it is ſaid, does not flouriſh: it will riſe very well from the ſeed, but generally goes off the firſt winter. And rye-graſs has been cautiouſly uſed, leſt it ſhould foul or impoveriſh the land!

The *reſult* of theſe experiments, ſome of them on a pretty large ſcale, is, ſome ſmall for-

fortunes have been ſunk, and ſome larger ones have been injured. I have not come at any thing like proof of one inſtance in which the *improvement* has been adequate to the *expence*.

General Observations. From theſe premiſes we may ſafely infer, that the two hundred thouſand acres of land under notice are unimproveable; or that the attempts at improvement which have hitherto been made have been ill conducted; or that the principle of improvement has hitherto been erroneous.

Unprepared as I am with ſelf-practice in the cultivation of theſe waſtes, it would be raſhneſs in me to dictate a general plan of improvement; but having ſome general knowledge of improvements of this nature, and having beſtowed ſome conſiderable ſhare of obſervation and attention on the Diſtrict under conſideration, it might be wrong to ſuppreſs the reflections which have occurred to me reſpecting its improvement. In a kingdom whoſe limits are not extenſive, two hundred thouſand acres of ſurface becomes an object of national importance; and on whether

ther they lie in a ſtate of waſte or productiveneſs, the welfare and happineſs of many individuals may be dependant.

The PRINCIPLE OF IMPROVEMENT is what I ſhall more particularly ſpeak to; and in doing this, I ſhall keep the HIGH-MOORS—not the heathy upper margin of the limeſtone heights—principally in view.

It appears to my mind that a man who attempts *at preſent* to crop theſe heaths with *corn*, muſt either be in natural abilities extremely deficient; totally uninformed in rural affairs; or unfortunately gifted with more genius than judgement. To begin with *carrying off* the means of productiveneſs in the ſhape of *grain* (which the cultivation of corn implies) from a ſoil which it is to be feared naturally contains them in very inconſiderable quantity; is irreconcileable with common ſenſe.

The ARTIFICIAL PRODUCE which ſtrikes me as eligible to be propagated at preſent on theſe heaths, is *wood* and *herbage*.

PLANTATIONS. There are evidences, but no proof, of theſe hills having been formerly covered with wood. The trees which are

ſtill

ſtill found in the peat-bogs are a pretty ſtrong evidence. And part of theſe hills being included within the ancient *foreſt* of Pickering, is a corroborating circumſtance.

That trees, if properly choſen and properly managed, would grow on theſe hills, is, I believe, beyond diſpute. And I am clearly of opinion that, *if they be improveable*, planting is the firſt ſtep which ought to be taken toward their improvement. Woodlands, if once extended, would not only afford immediate ſhelter to ſtock; but would in all human probability change the climature of theſe bleak ſwells ſo far as to give due encouragement to the herbage which might be cultivated upon them.

Where the ſurface is ſtrewed with large ſtones, planting ſeems to be the only probable mean of improvement. Where the ſurface is free, ſkreens of wood would be principally wanted.

The *Scotch fir* and the *birch* might be employed to break off the North and the Eaſterly winds. The *Norway ſpruce* and the

larch, and in all probability the *oak*, might with due care be reared in the more genial aſpects.

Much would depend upon *management*.—In Keldale and on Kempſwidden, the pine-tribe and oaklings were dibbled in among the ſtanding heath. No wonder they miſcarried. The ground ſhould be trenched with the ſpade; or be prepared with the plow; and the plants be put in with the nurſeryman's beſt care. Not ſingly or widely ſcattered: but in numbers and in cloſe order.

There is a natural warmth in vegetable as in animal life. One tree is raiſed with difficulty in any ſituation which is inclined to bleakneſs; but plant a number in cloſe order, and the difficulty is overcome. They not only create among themſelves, by their natural warmth and perſpiration, a freſh atmoſphere; but aſſiſt each other in withſtanding the attacks of the winds and other enemies.

HERBAGE. *If theſe hills be improveable by huſbandry*, the principle of improvement appears to me to be that of removing the *heath*, and

and replacing it with *herbage* adapted to such *ſtock* as is beſt ſuited to the ſoil and ſituation.

Sheep and *rabbits* are the ſtock beſt adapted to theſe hills; and the ſhorteſt and leaſt expenſive way of bringing them into a ſtate of SHEEP WALK and RABBIT WARREN is, on this principle of improvement, the *firſt* thing required.

The Heath, it is more than probable, cannot be overcome without *cultivation*. A ſimilar degree of *tillage* would probably be requiſite for herbage as for corn *.

The SPECIES OF HERBAGE would be the *graſſes*, the *legumes* †, and the *braſſica-tribe*. The hardieſt of the two former might be

 ſeen

* In Derbyſhire it has been found that a thick covering of *lime* alone is equal to the deſtruction of the heath, (*without breaking up the ſoil*,) and to the production of a turf of rich herbage. But I have heard it doubted, by thoſe who are acquainted with the practice, whether in that caſe the improvement be adequate to the expence; the quantity of lime requiſite to produce the effect being great. However, on the ſkirts of the hills under notice, to which lime might be carried at a moderate expence, the experiment would certainly be worth making.

† *Legumes*.—The clovers, trefoils, vetches, &c. &c.

ſeen in the foregoing liſt. The *turnep* and the *rape* might be choſen from the laſt. The *rye* and the *oat*, if fed off or mown for hay while in a ſtate of *herbage*, might be found eligible.

The MANURES which preſent themſelves are *lime*, which might be had in any quantity, and within a ſhort diſtance compared with that which it is carried in other Diſtricts. *Aſhes* of the peat-bogs, and the fat moor, where this is of ſufficient depth, might likewiſe be had at will. Even the *fat moor*, unburnt, it is more than probable, would afford a ſalutary manure, if properly applied. I have obſerved inſtances, in which having been thrown upon the ſurface, (as in cutting through it for a road), it has in a ſhort time become overgrown with a turf of fine herbage. *Earths*, if properly ſought for, might, it is highly probable, be found with natural qualities adapted to the improvement of the moory ſoil.

Another ſpecies of improvement, which it is probable might be proſecuted with ſucceſs, is that of cutting off the ſprings which overflow the ſides or the bottom of hills, and

under-

underdraining, if requiſite, the bogs they have formed; by which means many fertile patches might, it is probable, be produced.

Another ſpecies of melioration applicable to the reclaiming of theſe waſtes is *watering*—flooding. I have obſerved where the waters of hollow-ways, &c. break out over the black earth, a covering of graſs takes place. Almoſt all the bottoms of the vallies and ſkirts of the hills might be flooded with the ſprings and rivulets which lie above them.

Thoſe who are unacquainted with the practice of flooding will doubt the efficacy of the waters of *ſprings* and *clear* rivulets; while thoſe who are verſed in it would ſmile at their want of information. I have ſeen waters perfectly limpid produce the happieſt effect. It is not the *colour*, but the *intrinſic quality*, of water which fits it for the purpoſe of melioration. Any water, which is not in its nature poiſonous to plants, has, if properly thrown over graſsland in the ſpring and ſummer months, a beneficial effect. Whether the ſprings and rivulets in queſtion

would or would not have a beneficial effect on the lands which lie below them, might eaſily be put to the teſt.

By application and due attention upon the ſpot, other probable means of improvement might preſent themſelves.

That the principal part of theſe hills might be brought into a ſtate of graſs of no mean productiveneſs, appears to my mind indiſputable *. But whether any means of improving

* An inſtance ſtrongly corroborative of this opinion may be produced. A labourer who lived in "Blakay-Houſe,"—ſituated near the higheſt ſwell of theſe mountains,—incloſed a patch of moor adjoining to his houſe: a fair ſpecimen of "turf moor:"—namely, a dry black ſtoney ſoil, lying on a ſandy ſubſoil. Nevertheleſs, in 1783, when this improvement accidentally caught my eye, he had converted the principal part of it, perhaps about two acres, into a piece of *very productive graſsland*. He told me that he had tried *corn* of all ſorts upon it without ſucceſs. It came up very well, but generally died away in weaning from the kernel. Nor did *potatoes* ever do well. He had one year a very fine proſpect; but a cold high wind cut them off entirely. He was ſo fully tired of every thing but *graſs*, that upon a ſtripe he was about to lay down, he only meant to throw a few oats by way of encreaſing the ſwath of hay, intending to mow them off with the reſt of his cloſe. His *manure*—lime, aſhes, and cow-dung; doing a patch well over every year.

ing can be hit upon which would render the improvement greater than the expence of obtaining it, experience alone can ſhew; and *individuals* ought to enter cautiouſly into the project.

But, viewed in a *national* light, an improvement of this kind, whether individuals gain or loſe by the proſecution of it, is deſirable. If through the means of a ſoil which lies waſte, of foſſile ſubſtances which lie uſeleſs, of fire which may be had at will, and of water which nature has provided upon the ſpot, lands which are infertile can be rendered productive, without robbing thoſe which are already in a ſtate of productiveneſs; the reality of the acquiſition, to the ſtate, cannot be doubted.

In the center of theſe hills, among their higheſt eminences, lies a plot of land which belongs excluſively to the Duchy of Lancaſter. Might it not be laudable in Government to direct ſome attention toward its improvement? The two hundred thouſand acres of waſte which lie immediately round it would not be the only object in view. Twenty times the quantity of ſimilar ſurface lies waſte within the kinghom.

LIST

OF

RATES, &c.

BUILDING MATERIALS.

OAK TIMBER, for buildings, 14*d.* to 18*d.* a foot.

Aſh timber, 1*s.* to 1*s.* 6*d.* a-foot.

"Stock" bricks, 21*s.* a thouſand, and

"Water" bricks, 15*s.*

Pantiles, 45*s.*

Ridge-ſtones, 5*d.* a foot.

Copings of gables, 5*d.*

Gable brackets, 2*s.* 6*d.* each.

Lime, 7*s.* to 9*s.* a chaldron.

Dimenſions of bricks, $9\frac{1}{4}$—$4\frac{1}{4}$—$2\frac{1}{2}$ inches.

———————— pantiles, 14 by 10 inches.

CAR-

CARPENTER's WORK.

Journeyman's wages, 14*d.* and board, or 2*s.* a day.

MASON's WORK.

Journeyman's wages, 16*d.* and board, or 2*s.* a day.

Labourers ——— 10*d.* ——— or 1*s.* 6*d.* a day.

BLACKSMITH's WORK.

Common heavy work, 4*d.* a lb.

Traces, draught-irons, &c. 6*d.* a lb.

Horſe-ſhoes, 4*d.* each—removes, 1*d.* each.

Laying a ſhare or coulter, 8*d.* to 1*s.*

Sharping —— ——— 1*d.*

WOODLANDS.

Ship-timber at the ports, 3*l.* to 3 guineas a ton.

Carriage of timber, about 9*d.* a ton a mile.

"Crambles"

"Crambles"—firewood boughs, 10*s.* to 12*s.* a load.

Bark ready chopt for the tanner, 10*s.* 6*d.* a quarter.

Peeling bark, about 20*d.* a day.

——— and chopping 3*s.* to 3*s.* 6*d.* a quarter.

Spray faggots, 6*s.* to 8*s.* a hundred of six ſcores.

Binding ſuch faggots, 2*s.*

Felling and binding furze faggots, 4*d.* a ſcore.

Grubbing ——————————— 6*d.* a ſcore.

Grubbing without binding, 20*s.* to 30*s.* an acre.

PLANTATIONS.

Price of oziers, 1*s.* a bundle of a foot diameter, or 1¼ yard in circumference.

FENCES.

Price of ſeedling white thorn, 5*s.* a thouſand.

——— tranſplanted ——— 7*s.* to 8*s.* ———

Setting poſts and two rails and winding them with thorns, 4*d.* to 5*d.* a rod of 7 yards.

Stake-

Stake-and-edder hedge, 3*d.* to 4*d.* a rod of 7 yards.

Fence-walls; raiſing ſtones, carriage, and walling, 1*s.* a rod of 7 yards.

TEAM LABOUR.

Hire of four horſes and a man, 8*s.* to 10*s.* a-day.

Carriage of coals, about 8*d.* a chaldron a mile.

YEARLY SERVANT's WAGES.

Head man, 13 to 15*l.*
Second —— 8 to 10*l.*
Dairymaid, 5 to 6*l.*

DAY-LABOURER's WAGES.

Man in winter, 8*d.* a day and board.
—— in ſummer, 1*s.* to 18*d.* ————
Woman, in autumn and ſpring, 6*d.* a day, no board.
———— in hay-time, 9*d.* —— ————
———— in harveſt, 10*d.* —— ————

MA-

MANURE.

Price of lime, 7*s.* to 9*s.* a chaldron.

Burning lime—raiſing ſtones, breaking, felling, and helping to draw, 18*d.* to 20*d.* a chaldron.

Get on the north-ſide of the Vale (materials hard), from 2½ to 3 chaldrons of lime for one of coals.

——on the ſouth-ſide (ſtone ſofter), 3 to 3½ for one.

Set on 3 to 4 chaldrons an acre.

SOIL-PROCESS.

Underdraining with wood, 2 to 4 feet deep, 6*d.* for a rod of 7 yards.

Paring with the breaſt-plow, 10*s.* to 14*s.* an acre.

Drying and burning ſods, 5*s.* to 6*s.* an acre.

Spreading aſhes, 2*s.* an acre.

Whole expence, 18*s.* to 21*s.* an acre.

HARVEST-PROCESS.

Mowing graſs, 16*d.* a day and board; or 21*d.* to 2*s.* 3*d.* an acre.

Mowing corn, 1*s.* to 14*d.* a day and board.

BARN-LABOUR.

Thraſhing wheat, 3*d.* a ſtook: or 2*s.* 6*d.* to 3*s.* a quarter.

GRASSLAND.

Gait of a cow from Mayday to Michaelmas, 40*s.* to 45*s.*

PRO-

PROVINCIALISMS.

THE DIALECTS OF YORKSHIRE are ſtrikingly various.

The provincial language of *Cleveland* differs more widely, in ſome reſpects, from that of the *Vale of Pickering*, though ſituated only twelve or fifteen miles from each other, than the Dialect of the Vale does from that of Devonſhire, which is ſituated at an oppoſite extreme of the kingdom. The Eaſtern Morelands are a barrier which formerly cut off all communication between the two Diſtricts. But this cannot be the only cauſe of difference: the language and the manners of their reſpective inhabitants appear to have *no natural affinity:* they are, to preſent appearance, as diſtinct races of people as if they were deſcended from different roots. The pronunciation of the Vale bears a ſtrong analogy to the *Scotch*; while that of Cleveland, which

which lies immediately between the Vale and Scotland, has little or no affinity to the Scotch pronunciation.

About *Leeds*, the language ſtill varies: it is there ſtrongly marked by a *twang* in the pronunciation. In the Vale of Pickering the word cow, for inſtance, takes the *cloſe* ſound "coo;" about Leeds it becomes "caw:" the *a ſhort*, as in *can*; the *w* being articulated as in the eſtabliſhed pronunciation of the word.

In the more extreme parts of *Weſt Yorkſhire* the dialect is characterized by an *openneſs* or *broadneſs* of pronunciation, very different from the reſt of the county. The language even of Wakefield and that of Leeds, though theſe two places are ſituated within twenty miles of each other, are in many particulars leſs analogous than thoſe of Scotland and the Vale of Pickering.

The diſſimilitudes here mentioned, however, relate more to PRONUNCIATION, or what is leſs properly termed *accent*, than to WORDS. Nevertheleſs, in words, the different Diſtricts of this extenſive province vary conſiderably both in *identity* and *number*,

PRO-

PROVINCIAL WORDS are either *corruptions* of the eſtabliſhed language, or *native words* deſcended from the ANCIENT LANGUAGE of the province they are ſpoken in. Hence in RECLUSE DISTRICTS we muſt expect to find the greateſt number of *genuine provincialiſms*; —of ANCIENT VOCAL SOUNDS.

The VALE OF PICKERING is ſingularly circumſtanced in this reſpect. The peculiar recluſeneſs of its *ſituation* has been deſcribed; and being in a manner wholly agricultural, its *connexions* are inconſiderable. Had it not been for the influx of words and faſhion which *Scarborough* has annually drawn into it, this ſecluded Vale muſt inevitably have been, in language and manners, a century at leaſt behind every other Diſtrict of *this* kingdom ſituated equally near its center.

The MORELAND DALES, which are in reality appendages of the Vale, have been ſtill more effectually cut off from all *converſe with ſtrangers*. Their ſituation is ſo recluſe, their ſoil in general ſo infertile, and their aſpect ſo uninviting, that it is probable neither Roman, Dane, nor Saxon ever ſet foot in them. No

wonder, then, the language of these Dales, which differs little from that of the Vale,—except in its greater *purity*,—should abound in *native words*; or that it should vary so widely in *pronunciation* from the established language of this day, as to be in a manner wholly unintelligible to strangers; not, however, so much through *original words*, as through a regular SYSTEMATIC DEVIATION from the established *pronunciation* of *English words* *.

This difference in PRONUNCIATION generally arises from a *change of the vowels*; which is of course productive of a *change of words*. Hence it will be necessary, in giving an adequate idea of the language, to point out the *leading*

* It might be a difficult task, now, to ascertain with precision, whether these DEVIATIONS are in reality *corruptions* or *purities* of the ENGLISH LANGUAGE. They are probably a mixture of the two; I mean, they may contain some slight admixture of depravity. But it would be equally reasonable to suppose that a disturbed stream should be less adulterate than its fountain, as that the language at present established should be less *corrupt*, or (to change the word without altering the argument) less *refined* than that of a District secluded in a singular manner from all intercourse with other languages.

leading principles of pronunciation: and previous to this it may be proper to mention a deviation in GRAMMAR; which, I believe, is peculiar to the dialect under notice.

The provincial language of East-Yorkshire has no *genitive case*, except that of its possessive pronouns; and except when the nominative case is understood. When this is expressed, the preceding substantive becomes in effect an adjective; as, *John Hat,—George House*; analagous with *London porter,—Yorkshire butter.*

This excision of the genitive termination gives great additional beauty and simplicity to the language, *doing away almost entirely the declension of nouns,* and *lessening* that *hissing* which is so disagreeable to the ears of foreigners, and which is indisputably one of the greatest blemishes of the English language.

A person unacquainted with this mode of speech will conceive it to be the cause of much ambiguity. But, among those who use it, no inconveniency whatever arises from it. When the nominative case is not ex-

preſſed, then a genitive termination becomes requiſite, and is always uſed; as, Whoſe hat is this? It is *John*'s. Whoſe houſe is this? It is *George*'s. The ſame in the perſonal pronouns: as, Whoſe land is this? It is *your*'s; it is *mine*; it is *his*. Even when the ſubſtantive is joined, the perſonal pronouns take a genitive form; as, *his* country, *your* country, *my* country.

The PRONUNCIATION now remains to be noticed.

The deviations lie principally in the *vowels*; but there is one peculiarity of ARTICULATION which is noticeable; as being a ſtranger in the eſtabliſhed pronunciation; though common, I believe, to the northern counties. This is in the articulation of the *t*, in *butter*, *matter*, and all words of a ſimilar termination; alſo in *tree*, *trace*, *tread*, and all words and ſyllables beginning with *tr* *.

The articulation, in theſe caſes, is between the eſtabliſhed articulation of the *t* and that of the *th*; the tongue being preſſed hard againſt the teeth and the gums jointly; not ſlightly touching

* The letter *d* takes the ſame *articulation* in ſimilar caſes; namely, whenever it is ſubjoined with *r* or *er*.

touching the gums alone, as in the ordinary articulation of the *t*. I notice this as a *provincialism*; and know no better teſt of a *northern provincialiſt* than this peculiarity.

In the pronunciation of VOWELS, that of *o long*, as in *ſtone*, *yoke*, *bole*, *more*, is firſt noticeable. A mere provincialiſt of Eaſt Yorkſhire knows no ſuch ſound; nor can he, without much practice, pronounce it. In the provincial dialect it takes four diſtinct vocal ſounds; namely, *eea*, *au*, *ooa*, *a*,—according to the conſonants it is joined with in compoſition. Thus ſtone is pronounced *ſteean*; yoke, *yauk*; bole, *booal*; more, *mare*.

The diphthong *ea*, which formerly, it is probable, had a diſtinct vocal ſound aſſigned it in the Engliſh language, but which ſeems to be at preſent entirely unknown to the Engliſh tongue, is ſtill in common uſe in the dialect under notice. In the eſtabliſhed pronunciation, break is become *brake*; tea, *tee*; ſea, *ſee*; but in this they are pronounced alike, by a vocal ſound between the *e* and the *a* long.

The *a long* is generally, but not invariably, changed into *eea*; as, ſtake, *ſteeac*; lame, *leeam*; late, *leeat*; or into *a ſhort*, as, take, *tack*; make, *mack*.

The *e ſhort*, before *l* and *n*, is lengthened by the *y conſonant* articulated as in yet, yes, you: thus, well (a fountain) becomes *weyl*; to fell, to *ſeyl*; men, *meyn*; ten, *teyn*: in one caſe it changes into *e long*; as, well (the adverb), *weel*.

The *i long* ſeldom has the eſtabliſhed pronunciation. Before *ght* it generally changes into *e long*; as, night, *neet*; bright, *breet*; right, *reet*: before *l*, into *a broad* (as in father, half, and before the letter *r*); as, mile, *maal*; ſtile, *ſtaal*; and does not, in any caſe, take, in ſtrictneſs, the modern ſound, which is a diphthong compoſed of *a broad* and *e*: whereas its provincial ſound here is, the *accepted* ſound of *e ſhort* lengthened by the *y conſonant* *; as, white, *wheyt*; to write, to *wreyt*: a mode of pronunciation which perhaps formerly

* I ſay, the *accepted* ſound of *e ſhort*, though it is by no means the *actual* ſound of that vowel. I have nevertheleſs thought proper to give it the eſtabliſhed power in the Gloſſary. The *i ſhort* I retain for the ſame reaſon, though ſtill more liable to objection.

merly was in general uſe, but which now ſeems to be confined to provincial dialects, or is not at leaſt heard in *faſhionable* languages.

The *oo* before *k* changes into *u long*; as book, *buke*; to look, to *luke*: before *t*, *l*, *m*, *th*, generally into *ea long*; as boots, *beats*; fool, *feal*; broom, *bream*; tooth, *teath*: before *r*, moſtly into *ee*; as floor, *fleer*; door, *deer*.

Ol before *d* generally becomes *au*; as, old, *aud*; cold, *caud*; wolds, *wauds*: in one inſtance the *l* is mute; as, hold, *hod*.

In words ending in *ault* or *alt*, the *l* is likewiſe mute, the termination becoming in both caſes *aut*; as fault, *faut*; ſalt, *ſaut*; malt, *maut* *.

* This brings to my mind a circumſtance which deſerves notice; as it ſerves to ſhew the *proceſs of corruption*, or as others perhaps will have it, *refinement* of languages. There are, in many caſes, *two diſtinct provincial languages* in this Diſtrict: one of them ſpoken by the lower claſs,—more eſpecially of old people; the other by the ſuperior claſs of *provincialiſts*. The firſt I ſhall call the *vulgar tongue* (though in all probability the purer language); the other the *middle dialect*. Thus the Engliſh word *malt* is in the vulgar tongue *maut*;

The *ou* changes almoſt invariably into *oo*; as, flour, *floor*; our, *oor*; houſe, *hooſe*; mouſe, *mooſe*.

The *ow* is ſubject to a ſimilar deviation; as, bowls, *bools*; power, *poor*; flower, *floor*; bow, *boo*; cow, *coo*.

Theſe are the principal part of the more REGULAR DEVIATIONS in the pronunciation of the Eaſt-Yorkſhire dialect. To go thro' its ANOMALIES would be an endleſs taſk: ſome of them will appear in the following GLOSSARY; in the forming of which I have been induced to break through my original plan with reſpect to PROVINCIALISMS; which was, and indeed ſtill is, to confine myſelf merely to ſuch words as relate more eſpecially to RURAL AFFAIRS. But finding, *in this particular inſtance*, a DECLINING LANGUAGE, which

maut; in the middle dialect, *molt*: *Malton*, in like manner, becomes *Mauton* and *Molton*. All ſyllables formed with *o long* have three diſtinct pronunciations: thus *booal* in the vulgar tongue, *ball* in the middle dialect, and *bole* in the Engliſh language, convey the ſame idea. *Creeac*, *crake*, *crow*; *father* (the *a ſhort*), *faither*, *father*, are other inſtances. In a few generations, it is probable, the preſent vulgar tongue will be loſt, and the preſent middle dialect will then of courſe become the vulgar tongue.

which is unknown to the public *, but which, it is highly probable, contains more ample remains of the ANCIENT LANGUAGE of the CENTRAL PARTS OF THIS ISLAND, than any other which is now ſpoken; I was willing to do my beſt endeavour towards arreſting it in its preſent form; before the general blaze of faſhion and refinement, which has already ſpread its dawn even over this ſecluded Diſtrict, ſhall have buried it in irretrievable obſcurity.

* Except ſome fragments of it, which were collected on the banks of the Humber (at the moſt extreme diſtance from what may be conſidered as the ſource of the dialect) by Mr. Brokeſby, and communicated to Mr. RAY; who has preſerved them in his COLLECTION OF LOCAL WORDS.

PRO-

PROVINCIALISMS

OF

EAST-YORKSHIRE*.

EXPLANATIONS. In this Gloſſary, *a*, before a conſonant and without the *e final*, has the accepted power of *a ſhort*, as in man. *a*, with the *e final*, or *ai*, denotes the *Engliſh a*, or *a ſlender*, as in fate; *aa*, the *French a*, or the Engliſh *a broad*, as in half: *au*, the *Italian a*, or the Engliſh *aw*, as in law; *aw* a *ſyllable* compoſed of *a ſhort*, as in hat, and *w conſonant*, as in word.

e, the accepted power of *e ſhort*. *ea*, a *long vowel*, or *ſimple vocal ſound*, whoſe power lies between thoſe of *a ſlender* and *e long*. *ee*, the *e long*, as in feet. *eea*, a *diphthong*, or *compound vocal ſound*, compoſed of *e long* and *a ſhort*. *ey*, a *ſyllable* formed of *e ſhort*, and *y conſonant*.

o is invariably *ſhort*, as in hot. *oo* invariably *long*, as in food. *ooa*, a *compound* of *oo* and *a ſhort*.

The *i* and the *u* have their accepted powers aſſigned them; excepting the ſlight deviation in the *i long*, which has been mentioned. Where there is room for ambiguity, the *quantity* is ſpecified.

ABOON;

* More eſpecially of the Eaſtern Morelands and the Vale of Pickering: the Wolds, Holderneſs, and the Howardian hills, uſe the ſame dialect, but in a leſs perfect ſtate.

A.

A BOON; above, in its general ſenſe.

To ADDLE; to earn by working: "he cannot addle his bread."

ADDIWISSEN; to be ſent about addiwiſſen, is to be ſent on a fool's errand:—an expreſſion which is nearly obſolete.

AIRTH; quarter; as, "in what airth is the wind?"

AISK; a newt, or lizzard.

AITHER; a plowing; as, the firſt or ſecond aither; the ſame as *airth* of ſome places, and *earth* of others.

AME'LL; between; as, "amell ſix and ſeven o'clock."

ANANTERS, or ANTERS; leſt, or for fear;—"ananters it ſhould rain."

ANCHOR; the chape of a buckle.

ANENST, or OVER-ANENST; oppoſite.

AR; a cicatrice, or ſcar left by a wound.

ARFISH; ſomewhat afraid.

ARK; a kind of large cheſt or bin, with diviſions within, formerly uſed for laying up dreſſed corn in; a ſort of moveable granary.

ASS; aſhes.

ASSLE; query, a corruption of *axis*, or a *native* word? *aſile-tooth*, a grinder; *aſile-tree*, the axis of a carriage-wheel, but of no other wheel; nor is it ever applied without the termination tree. Perhaps *axle* is a pedantic corruption of this word.

AVE-

AVERAGE; the paſturage of common fields and other ſtubbles after harveſt.

AUM; elm.

B.

BACKSTON; (that is, *bakingſtone*) a ſlate, hung in an iron frame over the fire, to bake cakes upon.

BADGER; a huckſter.

BAIRN; child.

BAIRNWORTS; *bellis perennis*; daiſey.

BALKS (pronounced *bauks*); a rough chamber in an out-building.

BARFAN; a horſe-collar.

BARGUEST; a hobgoblin of the higheſt order; terrible in aſpect, and loaded with chains of tremendous rattle.

BASS; a matt of any kind.

BAT; a blow: hence

BATS; a beating: "aa'll gi' tha' thi' bats:" I'll give thee a beating.

BEACE; cattle; the plural of beaſt.

BEACE; a cattle-ſtall.

To BEAL; to bellow as an ox.

BECK; brook (the common term).

BEELD; ſhelter; alſo the cauſe of ſhelter: a clump or ſkreen of trees planted for the protection of ſtock, is called a beeld.

BELIVE; (the *i long*) in the evening.

BENT; a ſpecies of ruſh which grows on the Moreland hills.

BE-

BESHARP; make haſte.

BINK; a bench, common at the doors of cottages; generally made of ſtones, or of earth planted on the top with camomile.

BIRDSEYE; *veronica chamædrys*; germander ſpeedwell.

BISSLINGS, or BISSLING-MILK; the firſt milk of a newly-calven cow.

BLACK-NEBB'D-CROW; the carrion crow.

BLAKE; yellowiſh: colour of bees-wax.

BLASHY; wet, dirty, ſplaſhy; as, "blaſhy weather."

BLEA; duſky blue, or lead-colour.

BLEABERRY; *vaccinium myrtillus*, common whortleberry.

BLEB; a bliſter; or an air-bubble.

BLENDINGS; peas and beans grown together as a crop.

BLEWMILK; ſkim-milk.

BLINDERS, or BLINDING-BRIDLE (the *i ſhort*); blinkers for draught-horſes.

BLUE-CAPS; *ſcabioſa ſucciſa*; meadow ſcabious; devil's-bit.

BOGGLE; an inferior hobgoblin, or any thing frightful; hence *to boggle*, as a horſe.

BOG-VIOLET; *pinguicula vulgaris*; butterwort.

BONNY; pretty, handſome, beautiful.

To BOOAC; to reach; to keck.

BOON; going preſently; as, "he is boon to market."

BOORLY; luſty; groſs and large made, with ſome degree of comelineſs; as, a boorly man or woman.

BOTCHET;

BOTCHET; ſmall-beer mead.

BOTTRY; elder: a "bottry tree."

BRAKENS; *pteris aquilina*; brakes; fern.

BRANT; ſteep; as a hill, or a road (the common epithet).

BRASS; halfpence.

BRASHY; ſmall, rubbiſhly; as, refuſe fuel.

To BRAY; to pound, or to break ſmall, as lime-ſtones for the kiln, &c.

BREEA; the brink or bank of a brook or river.

BREERS; brambles and briars.

BRIDE-DOOR; "to run for the bride-door," is to ſtart for a favor given by a bride to be run for by the youth of the neighbourhood; who wait at the church-door until the marriage ceremony be over, and from thence run to the bride's door. The prize a ribbon, which is worn for the day in the hat of the winner. If the diſtance be great, as two or three miles, it is cuſtomary to "ride for the bride-door."

BRIDE-WAIN; a carriage loaded with houſhold furniture and utenſils, travelling from the bride's father's to the bridegroom's houſe. Formerly, great parade and ceremony were obſerved on this occaſion. The wains were drawn entirely by oxen, whoſe horns and heads were ornamented with ribbons. Ten or perhaps twenty pair of oxen have, on great occaſions, aſſiſted in drawing a bride-wain. A young woman at her ſpinning-wheel

wheel is ſeated on the center of the load. In paſſing through towns and villages, the bride's friends and acquaintance throw up articles of furniture, until the "draught," be it ever ſo powerful, is at leaſt feigned to be over-loaded; and at length is "ſet faſt;" generally, however, by ſome artifice, rather than the weight of the load; which, nevertheleſs, has on ſome occaſions been ſo conſiderable, as to require ſeveral wains to carry it.

BRIMMING; a ſow when ſhe takes the boar is ſaid to be a brimming; and the boar is ſaid to brim her.

BROOACH (that is *broach*); the ſpire of a church.

BROCK; a young graſshopper. "He ſweats like a brock."

BROO; the forehead; and hence the upper part of a hill, reſembling the forehead.

BUCKHEADING; cutting off live hedge-thorns, fence-height.

BUCKLE-HORNS; ſhort crooked horns, turning horizontally inward.

BUFE; a bough of a tree.

BUFFETSTOOL; a low four-legged ſtool.

BULLHEAD; the fiſh, miller's-thumb.

BULLS-FOREHEAD; *aira cæſpetoſa*; turfy air-graſs.

BULLSPINK; the bird, chaffinch.

BUMMLE-BEE; the humble bee; properly humming-bee.

BUN; a kecks, or hollow ſtem.

BUR-

BURDEN-BAND ; a hempen hay-band.
BURK ; *betula alba* ; the birch.
BUR-THISTLE ; *carduus lanceolatus* ; ſpear-thiſtle.
BUSK ; a buſh.
BUTTERBUMP ; the bittern.
BUVER ; the common gnat, or muſquito.

C.

To CADGE ; to carry.
To CAKE ; to cackle as geeſe : geeſe cake, hens cackle.
CAM ; any long mound of made earth.
CAN ; a ſmall milk-pail, with a handle on the ſide.
To CANKER ; to ruſt.
CANKER ; ruſt (in common uſe).
CANTY ; briſk, lively, active ; generally ſpoken of an old perſon.
CAPES ; ears of corn broken off in thraſhing (the NORF. COLDER).
CAR ; low marſhy ground ; fen ; contradiſtinct from "Ing," as being *paſtured*.
CARBERRIES ; gooſeberries ; *ribes groſſularia* ; properly *groſiberries*.
CARLINGS ; fried peaſe, eaten the Sunday next but one before Eaſter ; which is called "Carl-Sunday."
CAT-WHIN ; *roſa ſpinoſiſſima* ; burnet roſe.
To CAVE (vulgarly to *keeav*) ; to rake off or out of ; as ſhort ſtraws and ears from the corn in chaff on a barn-floor.
CAUF ; calf.

CAVING-

CAVING RAKE; a barn-floor rake, with a ſhort head and long teeth.

CAZZONS; the dung of cattle dried for fuel; a common article of fuel in Holderneſs.

CEILING; the wainſcotting of a room is called the "ſealin;" the ceiling, the "*underdrawing*."

CHATS; keys of the aſh, and maple; alſo the catkins of the hazle.

CHEESE-CAKE-GRASS; *lotus corniculatus*; birdsfoot trefoil.

CHESLIP-SKIN; the calf's bag, uſed in making "yerning."

CHIMPINGS; grits; rough-ground oatmeal.

To CHIP; to trip; as, "to chip up the heels;" or to "chip a fall;" as in wreſtling.

To CHIP; to break the ſhell as chickens do previous to their excluſion; alſo to *chop*, as the lips.

CHIZZIL; bran (the common term).

To CHUNTER; to talk about and repine at ſmall misfortunes; to expreſs diſcontent about trifles.

CICELY; *chærophyllum ſylveſtre*; orchard weed; cowparſley.

CLAGGY; ſticky; as wet clay.

To CLAME (*v. n.*); to daub, as wet ſoil with the harrows.

To CLAME; (*v. a.*) to ſpread unctuous matter; as ſalve on a plaſter, butter on bread.

To CLAPPERCLAW; to beat, or paw, with the open hand.

CLARTY; clammy, as honey, &c. ſpoken of a clayey ſoil when wet.

CLAVVER; clover.

To CLAVVER; to clamber, as children.

CLEANING; the ſecundine of the cow, ewe, &c.

To CLICK; to ſnatch haſtily or rudely.

To CLIP; to ſhear as ſheep.

CLIPPING; a ſheep-ſhearing.

CLOCKS; beetles of all kinds.

CLOCK-SEAVES; *ſchænus nigricans*; black-headed bogruſh.

CLODDY; thick, ſhort, and full of fleſh; as a bullock of this deſcription.

CLOG; a log; as a clog of wood.

CLOG-SHOES; wooden ſhoes; or rather ſhoes with wooden ſoals.

To CLOW; to pull together, rudely; or to labour in a vulgar, furious manner.

CLUBSTER; a ſtoat.

To CLUNTER; to make a rude noiſe with the feet in walking.

To COBBLE; to ſtone; to throw ſtones, dirt, or ſnow-balls.

COBBLES; pebbles; round ſtones found in the ſoil. Alſo the ſmall boats of fiſhermen, &c.

COBBLETREES; double ſwingle-trees, whippins, or ſplinter-bars.

COBBY; merry; cheerful.

COD;

COD; pod: peaſe or beans which are well hung with pods, are ſaid to be well "codded."

COMMOTHER (perhaps *Co-mother*); a godmother.

CONNY; clever; neat; tidy; agreeable.

COOL, or COWL; a ſwelling raiſed on the head by a blow from a cudgel, or other hard weapon.

COOP; an ox cart, with a *cloſe* body, and without "ſhelvings," for carrying manure, &c. ſtill in uſe.

To COOR; to crouch or ſit upon the haunches.

COOSCOT; a wood-pigeon.

COPING (pronounced *keeaping*); the covering of a ſtone quarry.

CORNBIND; *polygonum convolvulus*; climbing buck wheat: alſo *convolvulus arvenſis*; corn convolvulus.

CLOSE (pronounced *clooace*), an incloſure; in diſtinction to "field," which implies an open field.

COTTREL; the *key* of an iron bolt.

COWDY; pert; frolickſome.

To COWL; to gather, rake, or ſcrape together.

COWL-RAKE; a mud ſcraper.

COW-MIG; the drainage of a cow-houſe, or dunghill.

To COWP; to change; to ſwap.

COWSTRIPLINGS; *primula veris*; cowſlips.

COWTHERED; recovered from diſeaſe or coldneſs.

COW-TIE; a ſhort thick hair rope, with a wooden nut at one end, and an eye formed in the other; for hoppling the hind legs of a cow while in milking.

CRAKE (vulg. *creeak)*; a crow or rook.

CRAKEFEET; *orches*; orchiſes.

CRAKENEEDLES; *ſcandix pecten veneris*; ſhepherds needle.

CRAMBLES; large boughs of trees, off which the faggot wood is cut.

CRANKY; checked linnen: "cranky apron;" a checked-linen apron.

To CREE; to ſeethe; to *pre-boil*, as rice, &c.

CREEL; a kind of bier, uſed for ſlaughtering and ſalving ſheep upon.

CROFT; a ſmall incloſure; larger than a yard; but ſmaller than a "cloſe."

CROOK (pronounced *cruke)*; a hook; as, a "yat-cruke;" a gate hook.

CROUCE; pleaſed, ſatisfied, happy, in good ſpirits.

To CROWDLE (diminutive of *to crowd)*; to creep cloſe together, as children round the fire, or chickens under the hen.

To CRUNKLE; to tumble or rumple, as linen or other cloaths.

CUPROSE; *papaver*; poppy.

CUSHIA; *heracleum ſpondylium*; cowparſnep.

D.

D.

DAFT; ſtupid, inapt; oppoſed to quick and ſenſible.

DAITLE (that is *day-tale*); by the day; as, "daitle-man," a day-labourer; "daitle-work," work done by the day.

DAP; fledge, as young birds in the neſt.

DAW; doughy, underbaked.

DAWL'D; tired; worn-out with fatigue or repetition.

DEA; do: as, "winnot ye dea't?" will you not do it?

DEAF; blaſted, or barren; as a deaf ear of corn; or a deaf nut; namely, a nut without a kernel.

DEA-NETTLE; *galeopſis tetrahit*; wild hemp.

DEEAZ'D; killed, or much injured by cold, or a want of due warmth; as vegetables which are froſt-nipped; or chickens which die in the ſhell, through the hen's abſence.

DEED; doings: "whent deed;" great to-do.

DEFT; neat; pretty; handſome.

To DELVE; to dint or bruiſe, as a pewter or a tin veſſel.

DESS (of hay); a cut of hay.

To DESS UP; to pile up neatly.

To DIG; to break up the ground with a hack, mattock, or other tool, which requires a ſtroke in uſing it: ſee To GRAVE,

DIKE; a ditch; alſo a puddle, or ſmall pool of water.

To DILL; to ſoothe, blunt or ſilence pain or ſound.

To DITHER (the *i ſhort*, as in wither); to tremble or ſhiver with cold.

To DOCK; to trim the buttocks, &c. of ſheep.

DOCKEN; *rumex*; dock.

DOGFINKIL; *anthemis cotula*; maithe-weed.

DONNOT (that is, *dows-not*); good for nothing; bad: a name of the Devil.

To DOOK; to duck, or immerge in water; alſo to bow down the head abruptly.

DOORY, or DEERY; very little, diminutive: "a laatle doory thing."

DORDUM; a loud, confuſed, riotous noiſe.

To DOW; to thrive or be uſeful; as, "he dows for nought," he is good for nothing: "he neither dees nor dows," he neither dies nor mends.

DOWLED; dead, flat; ſpoken of liquor which has loſt its head.

DOWLEY; ſickly, pale; not briſk, or florid.

DOWNDINNER; afternoon luncheon.

DOZZAND; ſhrivelled; not plump and fair.

DRAFF; brewer's grains.

DRAPE (vulgarly *dreeap*); a barren cow.

DRAUGHT; a team, either of oxen or horſes.

DREE; tedious; unexpectedly long.

To DRESS (pron. *driſs*); to clean, as the barn-floor or the table; alſo to cleanſe from refuſe, as corn or flour.

To

To DRITE; to drawl in ſpeaking.

DROKE (pronounced *drooac*); *lolium temulentum*; darnel.

DUBBLER; a diſh or platter for the table.

DUMP; a deep hole of water; feigned at leaſt to be bottomleſs.

DUNDER-KNOLL; a blockhead.

To DUZ; to beat out, as over-ripe corn at harveſt.

E.

EASINS; eaves of a houſe.

EE; the eye.

EEN; eyes.

EERAN; errand.

ELLER; *betula alnus*; alder.

ELSIN; an awl.

ENTRY; an entrance, or ſmall hall.

ESH; the aſh: probably the Saxon pronunciation.

EWER; ſee YEWER.

F.

FAANTICKLES; freckles on the face.

To FAFF; to blow in puffs.

FALLOW; ground laid down to reſt, without ſowing graſs ſeeds (as formerly practiſed).

FALLOW-HAY; hay grown upon a fallow, o new natural ley.

To FALTER; to thrash barley in the chaff, in order to break off the awns.

To FASH; to teaze, and vex by importunity.

FAT-HEN; *chenopodium*; goosefoot.

FAUD; a truss of short straw, containing as much as the arms can well "faud;" that is, fold.

FAUF; a fallow, or ground repeatedly tilled, without an intervening crop.

To FEAL; to hide, in the general sense.

To FEED (*v. a.*); to fat cattle or sheep. "I mean to feed him;" I intend to fat him.

To FELLY; to break up a fallow.

FEND; activity, management, assiduity, prowess.

To FEND; to strive, as for a livelihood.

To FEY; to winnow with the natural wind.

To FEZZON ON; to seize fiercely; as the bull-dog fastens on the baited bull.

To FICK; to struggle or fight with the legs; as a cow in the "tie;" or a child in the cradle.

FIRE-EYLDING; fuel.

FITCHES; *viciæ*; vetches.

To FITTLE; to prepare, adjust, or make ready.

FIXFAX; the sinews of the neck of cattle and sheep.

To FLACK; to flicker as a bird; to throb as a wound.

FLAGS; flakes of snow are called "snaw-flags."

To FLAN; to spread wide; as the sides of a bowl or scuttle; opposite to upright.

To FLAY; to frighten, in the general sense.

FLAY-

FLAY-CRAKE; a ſcare-crow.

FLEAKS; wattles; hurdles woven with twigs.

FLECKED; pied, as cattle.

FLIG; fledge; able to *fly*; analogous with to *lig*, to lie.

To FLIT; to move, or remove, as tenants at quarter-day.

To FLOWTER; to flurry, or confuſe, with a degree of fear.

FOALFOOT; *tuſſilago farfara*; coltsfoot.

FOG; aftergraſs (hence perhaps *foggy*, as applied to a horſe).

FOISTY; muſty.

FOLDGARTH (vulg. *faudgarth*); farm-yard.

FOND; weak, ſilly, fooliſh.

FOND-PLUFE: It was formerly a cuſtom, which is not I believe yet laid aſide, for the youth of each pariſh or townſhip to drag a plow from village to village, on Twelfth-day; collecting money to make merry with in the evening. Each party is headed by "Mab and his wife," in diſguiſe, with their faces blacked, and a kind of Harlequinean dreſs. I have met with no ſatisfactory account of the origin of this cuſtom.

FOSS; a waterfall.

FOULMART (pron. *foomart*); a polecat.

FOWT; a fool.

To

To FOOAZ; to level, with a pair of ſhears, the top of a fleece of wool.

FREM; ſtrange, inimical, not intimate or friendly.

To FRIDGE; to chafe; to *fricâ*; to wear or injure by friction.

FRUGGAN; an oven-poker: alſo a dirty ſlovenly woman.

G.

GAALFAT, or GUILEFAT; the vat in which new ale is ſet to ferment; alſo the liquor fermenting.

GAD; a long team-whip; alſo a fiſhing-rod.

GAIN; ſhort, near; as, the "gaineſt way."

GAIRN; yarn.

GAIT (vulg. *geeat*); ſtreet; as weſt-gait, caſtle-gait *, the town-gait, the gait-door.

GAIT (vulg. *geeat*); a way; as "killing-gait," "goſlip-gait;" the names of by-ways acroſs common fields; alſo "git a gait"—go thy way.

GAIT (pron. *geeat*); a going place; as a "cow-gait;" the going of a cow in a ſummer paſture.

GAIT (pronounced as *gate*); a ſingle ſheaf of corn, bound near the top, and ſet upon its butts.

GALLOWAY; the common name of a poney, or under-ſized ſaddle-horſe.

GA-

* In towns which never were incloſed by a wall; conſequently never had any *gates*. The interior ſtreets of York, and perhaps of all old towns in the county, are called *gaits*; improperly *gates*.

GAMASHERS ; ſhort ſpatterdaſhes, worn by plowmen.

To GAMMER ; to idle:

GAMMERSTAGS ; an idle looſe girl.

To GANG ; to go.

GANG; a ſet ; as, " a gang of calves-feet."

GANTRY ; a beer-ſtand ; a frame for placing liquor-caſks on.

To GAR ; to make, or oblige by force ; as, " I'll gar you do it."

GARFITS ; garbage.

GARSIL ; hedging thorns, or other bruſhwood uſed in making dead hedges.

GARTH ; a yard, or ſmall incloſure near a houſe.

To GAUV ; to ſtare about oafiſhly.

GAUVISON ; an oafiſh, weak ſilly fellow.

GEEAVLAC (perhaps *gavlehack*) ; an iron crow for raiſing ſtones, &c.

GEEAVLE (in the middle dialect *gavle*) ; the gable of a building.

GEERS ; harneſs of draught horſes (the common term).

To GERN (the *g hard*, as in get) ; to ſnarl as a dog, or an ill-natured huſband.

GEWGAW ; a Jew's harp.

GIB (the *g hard*, as in gild) ; a hook : a *gibby ſtick*, a hooked ſtick.

GILDERS (the *g hard*) ; hair nooſes for catching ſmall birds.

GILL

GILL (the *g hard*); a ſmall valley; generally a branch of a valley, in a mountainous country, furniſhed with a ſtream, and containing more or leſs woodineſs.

GILTS (the *g hard*); young female pigs, whether open or ſpayed; analogous with *heifer*.

GIMMER (the *g hard*); a female young ſheep; as, "gimmer-lamb—a ewe-lamb—"gimmer-hog"—a female ewe of the firſt year.

A GLIFT; a glimpſe.

To GLOOAR; to ſtare with a fixt countenance, rudely, or frightfully.

GOB; a vulgar name for the mouth: hence *gobſtick*, a wooden ſpoon.

GODSPENNY; earneſt money, given on hiring a ſervant.

GODSHARLD; God forbid!

GOLDSPINK; the bird, yellowhammer.

GOOAC (mid. dial. *gauk*); the core of a hay-ſtack, or an apple.

GOSSIP; a godfather.

GOTHERLY; affable, ſociable, pleaſed with each other.

GOWEANS; the yellow flowers of the crowfoot tribe.

GOWPIN; as much as the two hands can hold.

GRAIN; a branch; as, a bough of a tree, or a branch of a dale; and alſo the tine of a fork.

GRAITH; riches.

To GRAITHE ; to make fit; to prepare; to furniſh with things ſuitable.

To GRAVE (vulg. *greeav*) ; to dig or break up the ground with a *ſpade*. See To DIG.

GREASE; rancid butter, of the loweſt degree. See Vol. II. p. 196.

To GREET ; to weep ; to cry as a child, or a perſon in grief.

GRIFF ; a deep valley, with a rocky fiſſure-like chaſm at the bottom.

To GRIME ; to ſully with ſoot or coals : in common uſe.

GRIP ; a trench, or ſmall ditch.

GRIPE ; a dung-fork.

GRIZELY (vulg. *graazly*) ; ugly in the extreme.

H.

HACK ; half a mattock ; a mattock without the axe-end ; a tool much in uſe.

HAG-WORM ; an adder.

HAGS ; hanging-woods ; or woods in general.

HAIROUGH ; *galium aperine* ; cleavers.

HANDCLOUT (that is, *hand-cloth*) ; a towel.

HANK ; a with, or rope, for faſtening a gate.

To HAP ; to cover ; as the ſeed with ſoil, or the body with cloaths.

A HAR ; a ſtrong fog or ſmall drizzling rain.

HAR-

HARLED; mottled; as cattle.

HASK; deficient in moiſture; ſpoken more particularly of food, as bread.

HAUF; half.

HAVVER; oats.

HAY-SPADE; a ſharp, heart-ſhaped ſpade, univerſally in uſe for cutting hay with.

HEAF; the haunt or habitual paſture of ſheep, on a common or heath.

HEAP; a pottle; a quartern; a quarter of a peck.

To HEAZ; to cough or hawk; as cattle when they clear the windpike, or force up phlegm.

HEBBLE; the rail of a wooden bridge.

HECK; a rack; as a "hay-heck;" a horſe-rack; alſo the inner or entry-door of a cottage; formerly, in all probability, made like a heck.

HECKLE; the flax-dreſſers tool.

HECKLER; a flax-dreſſer.

HEDGING-MITTENS; hedging-gloves.

HEEAL; whole (probably the old Britiſh word).

HELM; a hovel; or an open ſhed for cattle; ſometimes covered with faggots, and frequently with a ſtack of beans or other corn.

HENYBAUKS; hen-rooſt.

HENYCAUL; a chicken-coop.

HENYPENNY; *rhinanthus criſta galli*; yellow rattle.

HEV; have.

HEZ; has.

HIND; a farm-bailiff, or headman.

To

To HIPE; to ſtrike with the horn (Doss—Norf.)

HIPPLES; cocklets, or ſmall bundles of hay ſet up to dry. Vol. II. p. 141.

To HITCH; to hop on one leg.

HOB; the ſhoe or ſoal of a ſledge.

HOG; a ſheep of a year old; a hoggard.

HOG-PIGS; caſtrates; barrow-pigs.

HOLL (pronounced *howl*); hollow; as, a "holl-way," a hollow-way: cattle when empty of meat are ſaid to be "holl."

HOLL; a deep narrow valley is frequently termed a "holl."

HOLLIN; holly.

HOLM (pron. *howm*); a freſh-water iſland; a piece of land ſurrounded by a divaricating river or brook: hence the name of places, as *Keld-holm*, *North-holm*.

HONEY; a common word of endearment.

The HOOD; the back of the fire.

To HOPPLE; to fetter, by tying the forelegs looſely together.

HORSAM and HUNGIL-MONEY; a ſmall tax which is ſtill paid (though the intention of it has long ſince ceaſed) by the townſhips on the north ſide of the Vale, and within the lathe or weapontake of Pickering, for horſemen and hounds kept for the purpoſe of driving off the deer of the foreſt of Pickering from the corn-fields which bordered upon it. When that field of a given townſhip which lay next the foreſt was fallow,

no

no tax was due from it that year: and tho' this foreſt has long been thrown open, or diſafforeſted, and the common fields now incloſed, the "fauf year" (calculating every third year) is ſtill exempt from this *impoſition*.

HORSEKNOBS; *centaurea jacea*; knobweed; knapweed.

HOST-HOUSE (pron. *woſt-houſe*); a farmer's inn at market.

To HOVER; to ſtay; to wait for: "Will you hover till I come?"

The HOUSE; the ſitting-room, or fore-kitchen.

HOW; a round hillock; perhaps ſometimes a natural knoll; but generally of factitious origin. The Moreland ſwells abound with *hows*.

To HOWZE; to lade, as water.

HOYT; a ſimpleton; a mild name for a fool.

HUBBLESHEW; a hubbub, a tumultuous aſſembly.

HUFFIL; a finger-bag.

HUFIL; the bird, woodpecker.

To HUG; to carry; eſpecially a cumbrous load.

The HUKE; the huckle, or hip.

HULET; an owl.

HUMBLED; hornleſs; ſpoken of cattle and ſheep.

To HURPLE; to ſtick up the back, as cattle under a hedge in cold weather.

HYVIN; ivy.

J.

To JAUP (*v. n.*) ; to make a noiſe like liquor agitated in a cloſe veſſel.

To JAUP (*v. a.*) ; to jumble ; as the ſediment with the clear of bottled liquor.

JEWEL ; the ſtarling of a wooden bridge.

ILK ; each ; every ; as, " ilk other houſe."

IMP ; an eke placed under a bee-hive.

The IN-EAR, or NEAR ; the kidney.

ING ; meadow ; low mowing ground. See CAR.

INOO ; preſently.

JUST NOO (that is, *juſt now*) ; immediately, inſtantly.

K.

To KEDGE ; to gluttonize.

KEEAL, or *kale* ; broth ; pottage.

KEEAL-POT ; porridge-pot.

KEEANS ; ſcum, or *mother*, of ale, &c.

KELD (vulg. *keyld*) ; a ſpring ; or perhaps a general name for a river or brook which riſes abruptly : hence the names of places ; as, *keld-head*, the head of the river Coſta ; *keldholm*, near the efflux of the Dove ; *holl-keld-head*, the head of an emergent brook near Kirbymoorſide.

KELTER ; condition. " He is in good kelter :" he is in good caſe.

To KEN (vulg. to *keyn*); to know: a word in common uſe. "Do you ken him?" Do you know him?

KENSBACK; a thing known by ſome ſtriking mark is ſaid to be a kenſback.

To KEP; to catch, as a ball, or rain-water from the eaves of a houſe.

KERN; churn (probably Britiſh).

KET; carrion; and hence a word of reproach.

KIDS; faggots.

KIE; cows; the plural of "*coo.*"

KIMLIN; a large dough-tub.

KIN; a chop in the hand, &c.

KIND; friendly, intimate. "They are as kaand as brothers."

KINK; a fit, or paroxiſm; as, a "kink of laughter," a violent fit of laughter: hence

KINK-COUGH; the hooping-cough.

KIRK; church; ſtill pretty common in the vulgar dialect.

KIST; cheſt.

KITE; a vulgar name for the belly.

KITLING; kitten, or young cat; *Catling.*

KITTLE; tickliſh; ſenſible to the ſlighteſt touch; actuated by the moſt frivolous motive; unſtable; tottering.

To KNACK; to attempt to ſpeak the eſtabliſhed language; or to ſpeak it affectedly.

To

To KNARL ; to knaw.

The KNOLL ; the top or ſwell of a hill is called the knoll of the hill.

L.

LAATLE ; little.

To LAIK ; to play, as children ; or at cards, or other game.

To LAIT ; to ſeek, in the general ſenſe.

LANGSICKLE ; a kind of wooden ſopha.

LASS ; the vulgar name of a maid-ſervant.

LAT ; a lath.

LAUKERINS ! an expreſſion of ſome little ſurprize, or diſguſt.

LEA ; the common term for a ſithe.

LEA-SAND. See STRICKLE.

To LEAD (pronounced *leed*) ; to carry, as corn and hay.

LEAD-BOWLS (the *ea long*) ; milk-leads.

LEAP ; a large deep baſket ; a chaff baſket.

LEATHWAKE ; lithe, weak, flexible, limber, feeble ; as a hair, a thread, an ozier twig, or an angling-rod.

LEAVE-HOLD ; let go.

To LECK-ON ; to add more water, as in brewing.

To LEEM ; to furniſh the rock of the ſpinning-wheel with line ; alſo to free nuts from their huſks.

LEEVE; willingly; a word of indifference. "Aa'd as leeve gang as ſtay;" I would as ſoon go as ſtay. A word in common uſe.

LEER; a barn (growing into diſuſe).

LEYLANDS; lands in a common field laid down to graſs; oppoſed to plowlands, or ſuch as are kept under tillage.

To LIB; to geld male lambs and calves (horſes and pigs are "*gelded*").

To LIE LEY; to lie in graſs; as lands in a common field. See LEYLANDS.

To LIG; to lie along.

To LIGHT; to reſt, depend, or rely. "It is not to light on;" It is not to be depended upon; it is not ſafe to ſettle or reſt on.

LING; *erica*; the common name for heath.

To LITE; to wait; as, "Will ye lite o' ma'?" Will you wait for me?

LOBSTROUS LOUSE; a wood-louſe.

LOGGIN; a truſs of long ſtraw.

LOOAN, or LOOANIN; a lane.

To LOOK; to weed; or rather to diſweed; as corn, or young woods.

LOOP; the thimble of a gate or door. "Loops and crukes;" hooks and thimbles: alſo a ſtitch in knitting.

A LOW; a flame, or blaze; as the low of a candle.

LOWCE (that is, *looſe*); freed from ſervitude.

LOWND; loo, ſtill, calm, under ſhelter; oppoſed to windy.

To LOWP; to leap.

MACK;

M.

MACK ; ſort ; ſpecies ; as, what mack of corn, or ſtock ?

MEEALIN (mid. dial. *mailin*) ; an oven broom.

To MAINSWEAR ; to ſwear falſely ; to commit perjury.

MAIZ ; a kind of large light hay baſket.

MANG ; a maſh of bran, malt, &c.

MAR ; a mere, or ſmall lake.

MARROWS ; fellows ; ſpoken of oxen, &c. &c.

MASHELSON ; a mixture of wheat and rye ; meſlin.

MAUKS ; maggots.

MAUL ; a beetle ; as " a clodding-maul ;" a clotting-beetle.

MAULS ; *malvæ* ; mallows.

MAUF ; a brother-in-law.

MAUM ; mellow, attended with a degree of dryneſs.

MEADOW ; any ground ſhut up to be mown ; in contradiſtinction to paſture.

MEALS ; mould ; earth ; ſoil.

MEANS ; property.

MEEA ; the plural of more ; analogous with enow ; as, " *meea* meyn, and *mare* wark."

MELL (vulg. *meyl*) ; a mallet.

MELL-SUPPER, or MEYL-SUPPER ; a ſupper given to farm work-people at the cloſe of harveſt ; a harveſt-home.

MENSE ; manners ; creditableneſs.

MENSEFUL ; mannerly, decent, neat.

MERCURY ; arſenic.

MET ; two buſhels.

MET-POKE ; a narrow corn-bag to contain two buſhels.

MEW ; a mow of corn or hay.

MICKLE ; (vulg. tong.) ; much : "Is there mickle ti' dea ?" Is there much to do ?

MIDDEN ; a dunghill.

MIDGE ; a ſmall gnat.

MILNER ; miller.

To MINT ; to make a feint ; to aim without intending to hit ; alſo to hint diſtantly at ſomething deſired.

MISTEACHED ; (pron. *miſtecht*) ; ſpoiled by improper treatment ; vicious, as a horſe.

MITCH ; (mid. dial.) much.

MITTENS ; gloves with only one bag for the fingers.

MOOR-PAWMS ; (that is *Moor-Palms*) ; the flowers of the *carex* tribe ; after which the heath-ſheep, in the ſpring, ſtray away from their accuſtomed "heaſs :"—returning again when theſe flowers go off.

MOOTER ; toll taken at a mill for grinding corn.

MORTAR ; loamy ſoil beaten up with water, formerly uſed in building ordinary walls ; in contradiſtinction to "lime,"—"lime-and-ſand," or cement.

To MOULD (pronounced to *mowd*); to ſpread mole-hills, &c.

MOWDHILL; mole-hill.

MOWDIWARP; a mole.

MOY; muggy; alſo demure (perhaps cloſe).

MOZE; a moſs; that is, a lake overgrown with moſs and other aquatics.

MUCK; dung; manure.

To MUCK, or to MUCK-OUT; to clear the ſtalls of cattle from dung.

MUCK-MIDDEN; dunghill.

MUD-SHEEP; ſheep of the old large Teeſwater breed.

MUFFS; mitts.

MUN; muſt: "Aa mun gang;" I muſt go.

MUNNOT, or MOANT; muſt not: "Thoo munnot gang;" Thou muſt not go.

To MURL; to crumble as bread.

N.

NANTPIE; magpie.

NAT; a ſtraw mattraſs.

NEAF; the fiſt.

NEAF-FUL; a handful.

NEB; the beak of a bird.

To NEEZE; to ſneeze (the ancient pronunciation).

NITHERED (the *i ſhort* as in withered); periſhing with cold.

NOWTFOOT-OIL; an oil extracted from the feet of cattle.

NOWTHERD; cattle-herd, or keeper of cattle; neatherd.

O.

OLD-FARRAND (vulg. *audfarrand*); old-fashioned; spoken of a child forward in sense and backward in growth.

OLD MILK; skim-milk.

ON; used for *of*; as, "nowther on 'em ul teyl mah;" neither of them will tell me.

ON-STAND; the rent paid by the outgoing to the incoming tenant for such land as the former has rightfully cropped before his leaving the farm. See Vol. I. p. 37.

ORLING; a stinted child; or any ill thriving young stock.

OSKIN; an ox-gang; a quantity, or share of common field land, proportioned, perhaps, to the size of the fields, and the number of messuages in the given township, at the time the fields were set out, or apportioned among the houses.

To OVERGET (pronounced *owergit*); to overtake upon the road.

OWCE; ox.

OWCEN; oxen.

OWER; over.

OWERWELT (a word difficult to define); a ſheep which gets laid upon its back in a hollow is ſaid to be in an *owerwelt*.

P.

PAIT; a badger.

PALMS (pronounced *pawms*); the male catkins of the ſallow, which are worn in the hat (if the ſeaſon permit) on Palm Sunday. *Palm-croſſes* are alſo made, on that day, of the twigs of the ſame tree.

To PAN; to frame or proffer, as a learner: "He pans weel."

PANKIN; any ſmall earthen jar.

PARING-AND-BURNING; burnbeating; denſhering; ſodburning.

PARING-SPADE; a breaſt-plow.

PAWKY; arch; cunning; artful.

To PEFF; to cough ſhort and faintly, as ſheep.

PESSCOD-SCALDING; a kind of merry-making, in ſummer-evenings: the treat, green field peas, boiled in the ſhells.

To PET; to indulge; to ſpoil by over-indulgence.

PET; a child ſpoilt by improper indulgence.

PET-LAMB; a lamb reared by hand; a cade lamb.

To PICK; to puſh, or ſhove, with the arms or body: "He picked me down."

To PICK-UP; to vomit.

PICKS; the ſuit of diamonds, in cards.

PIE;

PIE; a receptacle for rape-ſeed. See Vol. II. p. 40.

To PIE; to pry; to peep, ſlyly and watchfully; perhaps as the magpie.

PIGGIN; a ſmall wooden drinking veſſel; now diſuſed.

PIGLEAVES; *onopordon acanthium*; cotton thiſtle.

PIKE; a ſtacklet, or loadcock, of hay. See Vol. II. p. 140.

A PILE OF GRASS; a blade of graſs.

PLANE-TREE; *acer pſeudo-platanus*; ſycamore.

PLOOK; a pimple.

PLUFE; plow; to *plew*; to plow.

POOAC; a narrow corn bag.

POPPLE; *agroſtemma githago*; cockle.

POST-AND-PAN. Old half-timber buildings are ſaid to be poſt-and-pan.

POT-KELPS; the looſe bow or handle of a porridge-pot.

PREACE; eſtimation: ſuch a perſon or thing is in "great preace."

PRICKER; a brad-awl.

PROD; a ſhort ſpike: hence

PROD; a goad for driving oxen.

To PROD; to poke or prick with a prod.

To PRODDLE; to poke, or feel for, or fetch out, with a long ſtick or other inſtrument.

PUBBLE; plump, full-bodied, as corn.

PULLS; the ſhells or chaff of rape and other pulſe.

PULSEY; a poultice.

QUEER;

Q.

QUEER ; the choir of a church.

QUICKS ; *triticum repens* ; couch-graſs. See WHICKS.

R.

To RAIT ; to diſſipate the ſap of vegetables, by expoſing them abroad to the weather. Hay is ſaid to be *raited* when it has been much expoſed to an alternacy of wet and dry weather. See the Art. FLAX ; Vol. II. page 74.

RAITCH ; a line or liſt of white down a horſe's face.

RANK ; ſtanding in cloſe order ; thick upon the ground, as corn in the field, or trees in a wood.

RANNLEBAUK ; a wooden bar, or balk, laid acroſs the chimney of a cottage, to hang the pot-hooks on.

REAPS ; parcels of corn laid by the *Reapers* to be gathered into ſheaves by the binder.

RECKLING ; the laſt of the farrow ; an under-ling.

RECKON ; pot-hooks of a particular make.

REEANG'D ; diſcoloured in ſtripes ; liſted.

REEK ; ſmoke ; a word in common uſe.

RESHES ; *juncus inflexus* ; wire-ruſh.

REZZLE ; weezle.

To RIE ; to turn corn in a ſieve ; bringing the "capes" into an eddy.

To RIFT ; to eructate.

RIGG ; ridge, as of land ; alſo a long narrow hill.

RIGGEN ; ridge of a roof.

RIGGEN-TREE ; a piece of timber laid along the ridge of a roof to ſupport the heads of the ſpars : an unneceſſary piece of timber with which all old roofs are loaded.

RIGGIL ; ridgil.

RIMS ; the ſteps or ſtaves of a ladder.

To ROIL ; to play the male-romp ; ſpoken of a rude playful boy.

ROOAC, or ROKE ; a kind of ſmoke ; a ſpecies of miſt, fog, or ſmall rain.

ROOP ; a hoarſeneſs.

ROOTER ; a kind of ruſhing noiſe ; or a rough attack ; as a violent guſt of wind ; or a perſon ruſhing into company abruptly, or rudely.

To ROW ; to rake or ſtir about, as aſhes in an oven.

To ROWT ; to low as cattle.

ROWTY ; rank ; overgrown, as beans or other corn.

RUD ; red ochre ; uſed in giving a temporary mark to ſheep.

RUDSTAKES ; ſtakes to which cattle are faſtened in the houſe.

To RUMMLE (that is, to *rumble*) ; to make a low rumbling noiſe, as the bull when he is agitated or diſpleaſed.

RUNSH ;

RUNSH ; *ſinapis arvenſis* ; wild muſtard ; catlock.

RUSH ; a feaſt ; a merry-making ; a rout.

RUSTBURN ; *ononis* ; reſt-harrow.

S.

SAAN ; ſince, when it follows the time ; as, "Hoo "lang ſaan ?" "A year ſaan."

SACKLESS ; idiotic ; ſpoken of a weak, harmleſs, inoffenſive perſon.

SAD ; heavy, applied to bread ; deep or dark, applied to colour.

SAIM ; hog's-lard.

SAL ; ſhall.

To SALVE SHEEP ; to dreſs them with tar and greaſe.

To SAM ; to curdle milk for cheeſe, &c. "When do you ſam ?" When do you ſet your milk ? or, When do you make cheeſe ?

SARK ; ſhirt.

SAUF ; *ſalix caprea* ; ſallow.

SAUFY ; wet, as land in a rainy ſeaſon.

SAUL ; a kind of moth.

To SCALE ; to ſpread, as manure, gravel, or other looſe materials.

SCAR ; a precipice faced with rock.

To SCRAUT ; to ſcratch, with a nail or other ſharp-pointed tool.

SCROGS ;

SCROGS ; ſtunted ſhrubs ; as the hazle browzed by cattle.

To SCUD ; to clean or ſcrape with a " ſpittle."

To SCUG ; to hide.

In SCUGGERY ; in ſecrecy ; hid, as from creditors.

SCUTTLE ; a ſhallow baſket or wicker-bowl ; much in uſe here in the barn, and in other departments of huſbandry.

SEAVES ; *junci* ; ruſhes.

SEER ; ſure, or aſſure ; as, " Aa weant, aa ſeer tha' ;" I won't, I aſſure thee.

SEG, or BULLSEG ; a caſtrate bull.

SEGGRUMS ; *ſenecio jacobæa* ; ragwort.

SEGS ; *carices* ; ſedges.

SEN ; ſelf : " Aa'll dea't mi' ſen ;" I'll do it myſelf.

To SET ; to *ſee*, or accompany part of the way.

SETTER ; a ſeton, or iſſue in cattle.

SETTERGRASS ; *helleborus fætidus* ; a ſpecies of bear's-foot ; uſed in making " ſetters" or iſſues in cattle.

To SHACK (that is, to *ſhake*) ; to ſhed, as corn at harveſt.

SHACK-FORK (that is, *ſhake-fork*) ; a wooden fork, for ſhaking ſtraw off the barn-floor ; generally made of a forked ozier ; the tines or branches about two feet long, and one foot wide at the points.

SHACKLE OF THE ARM ; the wriſt.

SHADE ; a ſhed for fuel, &c.

SHAFT ;

SHAFT; handle; as "fork-ſhaft"—"ſpade-ſhaft," &c.

SHANDY; a little crack-brained; ſomewhat crazy.

To SHED; to part; as wool, or the hair.

To SHEER; to reap, or cut corn, with a ſickle, or reaping-hook.

SHEEP-SALVE; tar-and-greaſe for dreſſing ſheep with. See Vol. II. p. 225.

SHELVINGS; moveable ſide-rails of a waggon or cart; put on for a top-load, and taken off for a body-load.

SHIBBANDS; ſhoe-ſtrings.

To SHILL; to ſhell; and more generally to ſeparate: taking off the ſloughs or ſkins of oats, in order to make oatmeal, is called *ſhilling* them; turning a ſmall quantity of milk into curds and whey is called *ſhilling* it; to ſever ſheep is to *ſhill* them.

SHOT-ON; rid-of: "He can't git ſhot on't:" he cannot diſpoſe or get rid of it.

To SHURL; to ſlide, as upon ice.

SIDE; long, deep; ſpoken of a roof, cloaths, &c.

To SIDELONG; to fetter, as a preventive from ſtraying, or breaking paſture, by chaining a fore and a hind foot of the ſame ſide together. See To HOPPLE.

SIDEWAVER; the purline of a roof.

To SIE; to ſtretch; as a rope, gloves, &c.

SIKE; ſuch, in its general ſenſe.

To SILE; to ſtrain, as freſh milk from the cow.

SILE; a milk-ſtrainer.

SILLS; the ſhafts of a waggon or cart.

SIN; ſince, when it precedes the time expreſſed; as, "I have not ſeen him ſin Tueſday."

To SIND; to rinſe, or waſh out, as linen, or a milking pail.

To SIPE; to ooze, or drain out ſlowly.

SINSAAN; ſince, when ſpoken indefinitely, or when the time is underſtood; as, "I have not ſeen him ſinſaan;" I have not ſeen him ſince, or ſince that time.

SITTINGS; ſtatutes for ſervants.

To SIZ; to hiſs.

SKEEL; a large milking pail; with two handles, formed of two oppoſite ſtaves riſing higher than the reſt.

To SKELP; to whip the bottom with the hand.

SKEP; a deep, round, coarſe baſket.

To SKERL; to ſcream as a child in crying, or a woman in diſtreſs.

To SKEYL; to lean on one ſide: to *ſkeyl-up*; to throw up the fore-part of a cart, in order to ſhoot the load; to *ſkeyl-over*; to overturn.

SKEYLBEAST; the partition of cattle ſtalls.

SKEYLD; party-coloured, as geeſe or ducks; ſhelled.

To

To SKIME (vulg. *ſkaam)*; to ſquint.

To SKIMMER; to ſhine; to glitter.

SKREED; a border; or narrow ſlip of land, or of cloth.

SKUFE; a precipice.

SLACK; a valley, or ſmall ſhallow dale; a dip.

SLAPE; ſlippery; as ice, or a dirty path.

SLED; a ſledge.

SLEEAN (that is, *ſlain)*; the ſmut of corn. An ear which is ſmutty is called a "ſlain ear."

To SLIPE OFF; to draw off ſuperficially; as ſkin from the body, bark from a tree, &c.

To SLITHER *(i ſhort*, as in hither); to ſlide, as down a rope, a ladder, or the ſide of a hill.

SLOT; any broad, *flat* wooden bar; diſtinct from a *flower*, which is always *round*.

SLUSH; mud.

To SMIT; to infect (perhaps to *ſmite*).

SMITTING; infectious; catching, as a diſeaſe.

SMOOT; a hair muce; or any ſmall gap or hole in the bottom of a hedge: hence,

To SMOOT; to creep under or through, as a hare or ſheep through a hedge.

To SMOOTH (vulg. to *ſmeath*); to iron waſhed linen.

To SMURK; to ſmile; to look pleaſantly.

To SNAPE; to ſilence, check, or at leaſt threaten, as a barking dog, or a miſchievous child.

SNECK, the latch of a door, or a gate.

SNEVVER; ſlender and neat.

SNOCKSNARLS; thread which is overtwiſted, and runs into kinks, is ſaid to run up into ſnock-ſnarls.

SNOD; ſmooth, even, ſmug, neat.

To SNOOAC; to ſmell in a ſnuffing manner.

SOCK; the ſhare of a plow (the common term).

SOKE (vulg. *ſooac*); an excluſive privilege claimed by a mill, for grinding all the corn which is uſed within the manor or townſhip it ſtands in *.

To SOSS; to lap, as a dog.

SOURDOCKEN; *rumex acetoſa*; ſorrel.

To SOWL; to pull about in water; as ſheep in the waſh-pool, &c.

SPAW; the ſlit of a pen.

SPECK; the heel-piece of a ſhoe.

To SPEEAN (mid. dial. to *ſpane*); to wean, as calves or pigs.

To SPEEAV (mid. dial. to *ſpave*); to ſpay, as a female calf.

To SPELDER (vulg. to *ſpeylder*); to ſpell, as a word.

SPELK; a ſplinter, or thin piece of wood.

SPENG'D; pied, as cattle.

SPICE; dried fruit, as raiſins, currants, &c.

SPIRES;

* Some trials at law relative to this ancient privilege have lately taken place; but the millers have generally been caſt. It ſeems to be underſtood, however, that an *alien* miller has no right to aſk publicly for corn to be ground in a pariſh which has a corn mill belonging to it. A horn may nevertheleſs be ſounded, or a bell be rung.

SPIRES; timber ſtands (not common).
SPITTLE; a ſpaddle, or little ſpade.
To SPREAD; to break hay out of ſwath; to *ted*.
To SPRENT; to ſplaſh or ſmear with ſmall ſpots.
SPRIG; a brad.
SPRING; a young wood, raiſed from the ſtools of fallen timber-trees.
SPRUNT; a ſteep road.
SQUAB; a couch, common in moſt farm "houſes."
STACKBARS; large hurdles with which hay ſtacks in the field are generally fenced.
STAG; a young horſe.
STALL; a doorleſs pew of a church.
STALLED; ſatiated with eating.
To STANG; to ſhoot with pain.
STANG; a long pole *.

STARK;

* To RIDE THE STANG. A cuſtom, which *few* men, I hope, will cenſure, has prevailed in this country time immemorial, and is ſtill, I find, prevalent. This cuſtom is called "riding the ſtang:" and is uſed as a reproof to the man who beats his wife; or (when it happens) to the wife who beats her huſband.

The ceremony is that of placing a man or a boy upon a long pole, borne on men's ſhoulders, and parading before the houſe of the delinquent; the rider repeating ſome ruſtic verſes applicable to the occaſion. If this be found ineffectual, the ceremony is repeated with ſtronger marks of diſapprobation. In flagrant and obſtinate caſes, the door has been aſſailed, the offender ſeized, and the puniſhment of the ducking-ſtool added to the diſgrace of the ſtang. Some inveterate caſes, it ſeems, have recently yielded to this admirable remedy.

STARK; tight; complete; not lax: as a ſtark rope; ſtark with ſevere exerciſe; ſtark mad.

To STAUP; to lift the feet high, and tread heavily, in walking.

STEATHING; a lath and plaiſter partition.

To STECK; to ſhut, as a door or a gate.

STEG; a gander.

STEVVON; a loud voice.

STIDDY (that is, *ſteady*); the common name of an anvil.

STOOK; ſhock; twelve ſheaves of corn ſet up together in the field.

STOOP; a poſt; as, "a yat-ſtoop," a gate-poſt; "ſtoops and rails," poſts and rails.

STONYHARD; *lithoſpermum arvenſe*; corn gromwell.

To STOOR; to riſe up in clouds, as ſmoke, duſt, fallen lime, &c.

STORM; a fall of ſnow.

STOT; a ſteer, or young ox.

STOVEN; a ſhoot of a tree.

STOWER; a ſtaff, or round ſtick; as, "a heck-ſtower," a rack-ſtaff.

To STRAMA'SH: to cruſh, or break irreparably; to deſtroy.

STREEA; ſtraw.

STRICKLE; an appendage of the ſithe; the tool with which it is whetted; made, here, in a peculiar manner: a ſquare piece of wood, worked off at one end to a point; the other end forms a handle: the ſurfaces indented with the point of a ſickle;

a ſickle; greaſed with hogs-lard; and powdered with ſharp ſand, or powder of a griſtone, found in one particular part of the Eaſtern Morelands; from whence it is carried as far as the banks of the Humber for this uſe; under the name of "leaſand."

To STRIP; to draw the *aftermilkings* of cows.

STRIPPINGS; *aftermilkings*; ſtrokings.

STRUNT; the dock of a horſe, independant of the hair; alſo the tail of ſlaughtered cattle or ſheep, when the ſkin is taken off.

To STUB; to grub up ſtumps of trees and ſhrubs.

STUNT; ſtubborn; not eaſy to be bent; as, a "ſtunt child," a ſtubborn child; a "ſtunt ſtick," a thick ſhort ſtick.

STUPID; obſtinate (the common epithet).

STURKEN; to ſtiffen, as melted greaſe.

STURKS; yearling cattle.

STY; a ladder (the common term).

SUD; ſhould.

To SUMMER-EAT; to uſe as paſture.

To SUNDER; to air; to expoſe to the ſun and wind; as hay which has been cocked but which is ſtill under-dry.

SWAD; a pod; eſpecially of peas which have been boiled in the ſhell.

SWAIMISH; baſhful, in the general ſenſe.

SWANG; any low, long, graſſy place covered with water.

SWAPE; a long pole turning on a fulcrum; uſed in raiſing water out of a well.

SWARTH; ſward; whether of graſs land, or of bacon.

To SWASH or SWASH-OVER; to ſpill by waves; as milk or water agitated in a pail.

SWATCH; a pattern or ſmall ſpecimen of cloth, cut off the end of the piece; alſo a dyer's tally.

To SWATTER; to ſpill or throw about water, as geeſe and ducks do in drinking.

SWEEATH; a ſwath of mown graſs.

SWEEATH-BAUK; the ridge of ſtubble or ſhort graſs which is left between two ſwath-widths in mowing.

SWEET-MART; the marten. See FOUL-MART.

To SWIDDEN; to ſinge, or burn off, as heath, &c.

To SWIDGE; to ſmart violently, as a burn or recent wound.

SWILL; a ſort of ſhallow tub.

SWILLINGS; hog-waſh.

SWILL-TUB; hog-tub.

SWINE-THISTLE; *ſonchus oleraceus*; ſow thiſtle.

To SWINGLE; to rough-dreſs flax.

SWINGLETREE; ſplinterbar; whippin.

SYKE; a rill or ſmall brook; more particularly, I believe, in a low boggy ſituation.

T.

To TAAL; to ſettle, or be reconciled to a ſituation; as a ſervant to a place; ſheep to a "heaf," &c.

TAISTREL; a raſcal.

TEA; to: as, "pud ſum mare tea't;" put ſome more to it.

TEA; too: as, "aal gang tea;" I'll go likewiſe.

TEAM; an ox-chain, paſſing from yoke to yoke.

To TEAM; to pour, as water: alſo to unload, as hay or corn.

TEAM; empty; as, a "team waggon," an empty waggon.

TEAP; tup; a ram.

TEATHY; peeviſh, as children when cutting the teeth.

To TED. See To SPREAD.

To TEEAV; to paw and ſprawl with the arms and legs.

TEMCE; a coarſe hair ſieve, for ſeparating the inferior flour from the bran.

To TENT; to tend, as ſheep or other ſtock.

To TENT; to ſcare or frighten; as, to tent the birds off the corn.

To TENG; to ſting, as the bee or the adder.

To TEW; to work as mortar, &c. alſo to agitate and fatigue by violent exerciſe.

THAAVLE; a pot-ſtick; a ladle without the bowl.

THACK; thatch.

THARFLY; ſlowly; deliberately; as, "the rain comes tharfly."

To THEAK; to thatch.

THEAKER; thatcher.

THEET; cloſe; tight; oppoſed to leaky.

THOU; this pronoun is ſtill much in uſe. Farmers in general "thou" their ſervants; the inferior claſs (and the lower claſs of men in general) frequently their wives, and always their children; and the children as invariably "thou" each other. Superiors in general "thou" their inferiors; while inferiors "you" their betters. Equals and intimates of the lower claſs generally "thou" one another. Theſe diſtinctions are ſometimes the cauſe of aukwardneſs: to "you" a man may be making too familiar with him; while to "thou" him might affront him.

To THREAP; to aſſert poſitively; to force down an argument.

THREAVE; twelve "loggins" of ſtraw.

THREEFOLD; *menyanthes trifoliata*; bogbean; buckbean.

THRONG (vulg. *thrang*); buſily employed; "deſperate thrang," very buſy.

THROW, or THRAW; a turner's lathe.

To THRUM; to pur, as a cat.

TIFFANY;

TIFFANY; a fine gauze ſieve, for ſeparating fine flour.

To TIFT; to adjuſt, or dreſs up.

TIPE; a trap or device for catching rabbits. See Vol. II. p. 265. Alſo for taking mice, rats, or other vermin. The general principle is that of a balance, with one end ſomewhat heavier than the other. The heavier end reſts horizontally on ſome ſupport: the lighter is furniſhed with a bait; which being approached, the weight of the animal overcomes the counter weight of the balance; which loſing its horizontal poſition, the animal drops into a pit, or a veſſel of water, placed below to receive it.

TIPPY; the brim of a cap, or bonnet.

TITTER; ſooner; rather: "I would titter go than ſtay."—"I was there titter than you."

TIV; to: "gang tiv 'em;" go to them.

TONGUE-WHALED; ſeverely ſcolded.

TRAMPERS; ſtrollers; whether beggars or pedlers.

TUFIT; the peewit, or green plover.

To TUM; to card wool roughly; to prepare it for the finer cards.

To TWATTLE; to pat; to make much of; as horſes, cows, dogs.

TWEEA; two, in its general ſenſe.

TWILL; a quill.

TWILT; a quilt, or bed-cover.

TWITCHBELL; the earwig.

TWITTER;

TWITTER; thread which is unevenly ſpun is ſaid to be in twitters.

V.

VARRA; very: "varra faan;" very fine.

VOIDER; a kind of open-work baſket.

U.

To UNBETHINK; to recollect: "I unbethought myſelf on't," I recollected it.

The UNDERDRAWING; the ceiling of a room. See CEILING.

UNKARD; ſtrange; as an unkard place. A ſervant is unkard on his firſt going to a freſh ſervitude.

UVVER: upper; as the uvver lip.

UZZLE, or BLACK UZZLE; a blackbird.

W.

WAD; would.

To WAFF; to bark as a cur.

WAIN; a large ox-cart with an *open* body, and furniſhed with "ſhelvings;" formerly uſed in carrying corn and hay. A hundred years ago, perhaps, there was not a farmer's WAGGON in the country: fifty years ago, WAINS were, I believe, pretty common: now, there is not, perhaps, one left.

WAIN-

WAINHOUSE; waggon-houſes ſtill retain the ancient name.

WAKE; a company of neighbours ſitting up all night with the dead: a cuſtom which is ſtill prevalent.

WALKER; a fuller.

WALK-MILL; a fulling-mill.

WALLANEERING; an expreſſion of pity.

WALSH; inſipid; wanting ſalt, or ſome other ſeaſoning: oppoſed to reliſhing.

WANKLE; unſtable; not to be depended upon; as wankle weather, a wankle ſeat, &c.

WAR, or WARSE; worſe.

WARBLES; maggots in the backs of cattle.

To WARE; to lay out; as money at a market.

To WARK; to ache: hence "head-wark"—"teeth-wark;" head-ache---tooth-ache.

WARK; work, in its general ſenſe. But what is noticeable, the verb *to work*, and the ſubſtantive *worker*, take the eſtabliſhed pronunciation.

WARK-DAY (pron. *warday*); week-day; in contradiſtinction to *Sunday*: "Sunday and war-day."

WARRIDGE; the withers of a horſe.

WATH; the common name of a ford.

WATTLES; rods laid on a roof to thatch upon.

WAVERS; young timberlings left ſtanding in a fallen wood.

To WAW (the *w* articulate); to mew as a cat.

To WAWL; to cry audibly, but not loudly.

WAZ-

WAZISTHEART; an expreſſion of condolence.
WEAD; very angry; mad, in the figurative ſenſe.
WEAKY; juicy; oppoſed to "haſk."
WEANT (vulg. dial.); won't, will not.
WEERING (that is, a *wearing*); a conſumption.
To be WEEA; to be ſorry: "I am weea for him."
WEE-BIT; ſmall piece.
WELL (vulg. *weyl*); ſurface ſprings, uſed as a ſource of water for domeſtic or other ſpecial purpoſes, are generally termed wells.
WEYEY (the *y* articulate); yes, yes.
To WHALE; to beat ſeverely, with a whip of pliant ſtick.
WHEAN; a ſtrumpet.
WHEEANG; a thong of leather.
WHENT; great; extraordinary: "whent deed," great doings.
WHERRY; a liquor made from the pulp of crabs after the verjuice is expreſſed; generally called crab-wherry.
To WHEWT; to whiſtle faintly, or unſkilfully.
WHICK; alive; quick.
WHICKS; quicks; couchgraſs.
WHIE; a heifer, or young cow.
WHIG; a beverage made with whey and herbs.
WHILK; which; as, "whilk will you have?"—not uſed in the *relative* ſenſe.
WHIMLY; ſoftly; ſilently, or with little noiſe.
WHINS; *ulex europæus*; furzes.

WHITE-

WHITE-NEBB'D CROW ; the rook.

To WHITE ; to cut or ſhape wood with a knife.

WHITTLE ; a pocket-knife.

WHISHT ! huſh ! ſilence !

WHOOR (mid. dial. WHEER) ; where : the latter is probably the *Saxon* pronunciation ; the former, perhaps, is of *Britiſh* origin.

WIDDY ; a with, or withy.

WIKE ; the corner of the mouth or eye.

WIKES ; temporary marks ; as boughs ſet up to divide ſwaths to be mown in the common ings ; alſo boughs ſet on haycocks for tithes, &c. &c.

WILF ; *ſalix alba* ; willow.

WINDER ; window.

To WINDER ; to clean corn with a fan.

WINDLESTRAWS ; *cynoſurus criſtatus* ; creſted dogstail.

WINNOT (mid. dial.) ; will not.

WIZZENED ; withered ; ſhrivelled.

WOODWESH ; *geniſta tinctoria* ; dyer's-broom.

WOTCHAT ; orchard.

WOTS ; oats.

To WRAX ; to ſtretch the body in yawning ; or as cattle do when they riſe.

WUMMLE ; an auger.

To WUN ; to live, or abide ; as, "he wuns at ſuch a place" (nearly obſolete).

WYAH ; well ; a word of conſent.

Y.

YAA; one, with the ſubſtantive expreſſed; as, "yaa man;" "yaa horſe."

YACK; oak: *yackrans*, acorns.

YAN; one, with the ſubſtantive underſtood; as, "gi' me yan:" give me one.

YANCE; once.

YAT; a gate.

YATHOUSE; a high carriage-gateway through a building.

YAWD; a riding-horſe.

YERNIN; cheeſe-rennet.

YERNUTS; *bunium bulbocaſtanum*; earthnuts.

YETHERS; edders.

YETLING; an iron pan.

YEWER; the udder of a cow, &c.

YESTERNIGHT (pronounced *yiſterneet*); laſt night; analogous with yeſterday.

YOON; oven.

To YOWL, or YOOL; to howl as a dog.

YUL-CLOG; a large log laid behind the fire on Chriſtmas-eve; about which, formerly, much ceremony was obſerved.

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